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CARSON CITY, NEVADA

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NEVADA STATE MUSEUM
ANTHROPOLOGICAL PAPERS NO. 10

THE CORN CREEK DUNES SITE

A Dated Surface Site in Southern Nevada

By

PETE A. WILLIAMS
and
ROBERT I. ORLINS

CARSON CITY, NEVADA

JUNE 1963

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PREFACE

This report on the Corn Creek Dunes Site is the first to appear as a result of the 1962-1963 Nevada State Museum Tule Springs Expedition. The Tule Springs field work was supported by a grant from the National Science Foundation (GS-23) to the Nevada State Museum which the Museum gratefully acknowledges. The many others who contributed to the project, too numerous to be listed here, will receive proper acknowledgment in the final report.

The site, Cl-243, was located during the regional extension of the Tule Springs archaeological surface survey. The discovery of several datable fire-hearths, and numerous associated artifacts, led to the decision to excavate the site. As far as I am able to determine, it is the first radiocarbon dated surface site in the Great Basin, and therefore of considerable importance.

The excavation of the site, while under my general direction, was under the immediate supervision of the authors. It was not only their first supervisory position, but the completed report is their first site description, analyses, and interpretation of data from such an excavation. I believe they are to be commended for their handling of the opportunity.

Richard Shutler, Jr.
Curator of Anthropology
Nevada State Museum
Principal Investigator
Tule Springs Project

INTRODUCTION

The site described herein is officially designated Cl-243 in the site file of the Nevada State Museum and was named the Corn Creek Dunes Site by the authors. It is located approximately one mile northwest of the Desert Game Range Headquarters at Corn Creek and 26 miles northwest of Las Vegas by way of U.S. highway 95.

The site was discovered December 30, 1962 by Dr. Richard Shutler, Jr., Principal Investigator, and C. Vance Haynes, geologist, of the Tule Springs Project, while engaged in an aerial extension of the geological-archaeological survey of the Tule Springs region. The charcoal from two hearths was immediately collected for radiocarbon dating because of its association with a non-ceramic tool assemblage. It was decided that the site be excavated when the first two dates, 4,400± 100 B.P. (UCLA#525: 1963) and 5,200± 100 B.P. (UCLA#526: 1963) were received. The charcoal from five other hearths was also dated, these dates proving to be internally consistent with the first ones received.

A search of the literature has shown that this is the first radiocarbon dating of a Great Basin surface site. This makes the site valuable as a basis for comparison with undated Great Basin surface sites having comparable tool assemblages, establishing their placement within a temporal context.

ACKNOWLEDGMENTS

We are grateful to the following individuals for their assistance during the course of excavation and the writing of this report. Mrs. Barbara Williams assisted in the field work, photographed the artifacts and did the historical research. Mr. Allan Weiseman surveyed the site. Mr. Wilder Bentley drew the contour maps. Dr. Marie Wormington and Dr. Alex Krieger examined the artifacts and offered valuable suggestions. Mr. Vance Haynes drew the strata profile and interpreted the geology. The bulldozer was skillfully operated by Mr. William Sampson and Mr. Lee Laub. The photographs of the site were taken by Dr. Richard Shutler, Jr. and Mr. Vance Haynes. Dr. Richard Shutler, Jr. has been most helpful during the period of field work and the organization of this report.

We are indebted to Mr. Newell B. Morgan, Manager of the Desert Game Range, for permission to work on the Desert Game Refuge, and permission to use the bulldozer at Cl-243. Dr. and Mrs. Charles Hansen of the Corn Creek Game Range Headquarters offered much information concerning the ecology of the area. Their warm hospitality did much to keep us comfortable during the adverse weather we encountered in the field. We also wish to thank Dr. Charles Rozaire, Miss Ruth D. Simpson and other members of the Tule Springs Project who visited the site and made various helpful suggestions. Mr. Dan Pete of Corn Springs was very helpful in locating sites in the area.

The radiocarbon dates were processed by Professor Gordon Fergusson and Dr. Willard Libby at the Isotopic Laboratory, Institute of Geophysics at UCLA. Mr. Alan Ziegler identified the faunal remains at the Museum of Vertebrate Zoology, University of California, Berkeley. Miss Dora Gutierrez of the Geology Museum, University of California, Berkeley, and Mr. Melvin Stinson of the California State Division of Mines and Geology aided with petrographic identification. The bullet was identified by the Earl C. Buchanan Firearms Shop of Berkeley.

We are particularly grateful to Mrs. Freddie Curtis and Mr. David A. Fredrickson who gave us so much of their time and worked so closely with us during the writing of this report.

HISTORICAL BACKGROUND

The Spanish, desirous of establishing a more northerly route for the Old Spanish Trail between their settlements in New Mexico and California, were the first Europeans to enter and explore southern Nevada. In 1776, Father Silvestre de Escalante conducted explorations along the Colorado River in the vicinity of the Virgin River.

In 1825, James Ohio Pattie, on a fur trapping expedition, passed through what is now southern Nevada along the Colorado River. In 1826, Jedediah Smith, in an effort to open a Salt Lake City - Los Angeles route, traveled down the Virgin River past the mouth of the Muddy River to the Colorado River and proceeded south.

In 1829, Jose Antonio Armijo established a most important short cut which cleared the Old Spanish Trail of its dependence upon the Colorado River. This shorter route left the Virgin River a little below the present town of Moapa and then led five miles overland to the Las Vegas Springs. This route then proceeded west across the Spring Mountains near what is now Potosi and eventually to the Mohave River.

In 1855, Mormon colonists established a permanent settlement at Las Vegas and in the 1860's Mormon colonies were also established along the Muddy River.

By 1900, a wagon trail linked the gold fields in the central area of the state with Las Vegas where, by 1905, connection could be made with the Salt Lake City and Los Angeles Railroad. Freight teams went north regularly hauling supplies and lumber to the goldmining towns, making water and rest stops as needed at Tule Springs, Corn Creek, Indian Springs, Mesquite Springs and others further north.

On December 16, 1906, the Las Vegas - Tonopah Railroad was completed and, although the tracks have now been removed, the raised, flat roadbed is still clearly discernable as it passes directly in front of the abandoned Corn Creek Railroad Station, approximately two miles south of the Corn Creek Field Station.

Corn Creek was included in the Desert Game Range when it was made a Federal Reserve in 1936. Established primarily for the preservation of the Nelson or desert bighorn mountain sheep, it is the largest Federal refuge in the United States.

BACKGROUND OF ARCHAEOLOGICAL WORK

The Corn Creek area has been known to relic hunters for many years. It is probable that the Corn Creek Dunes Site has been subjected to the relic hunters' selective collecting because of the apparent lack of whole projectile points. More inaccessible surface sites in the area are known to have a greater percentage of complete projectile points (see Appendix A).

In 1930 Mrs. Bertha Cody, Dr. Mark R. Harrington's niece, and one of his assistants at Gypsum Cave, checked the area south of Corn Creek. They found bone, some tentatively identified as camel, eroding out of ancient lake beds (Harrington and Simpson 1961: 25).

In 1956, Ruth Simpson and Stuart Peck spent one day surveying the Corn Creek area while they were in the field at Tule Springs. They reported seeing mammoth and other fragmentary bones in the Corn Creek lake beds. They also surveyed a dune and spring mound area west of the Corn Creek Game Range Headquarters. The artifacts recovered are described in Harrington and Simpson (1961: 125-130).

The archaeological history of southern Nevada has been summarized in Shutler, 1961: 1-2.

SITE DESCRIPTION AND TOPOGRAPHY

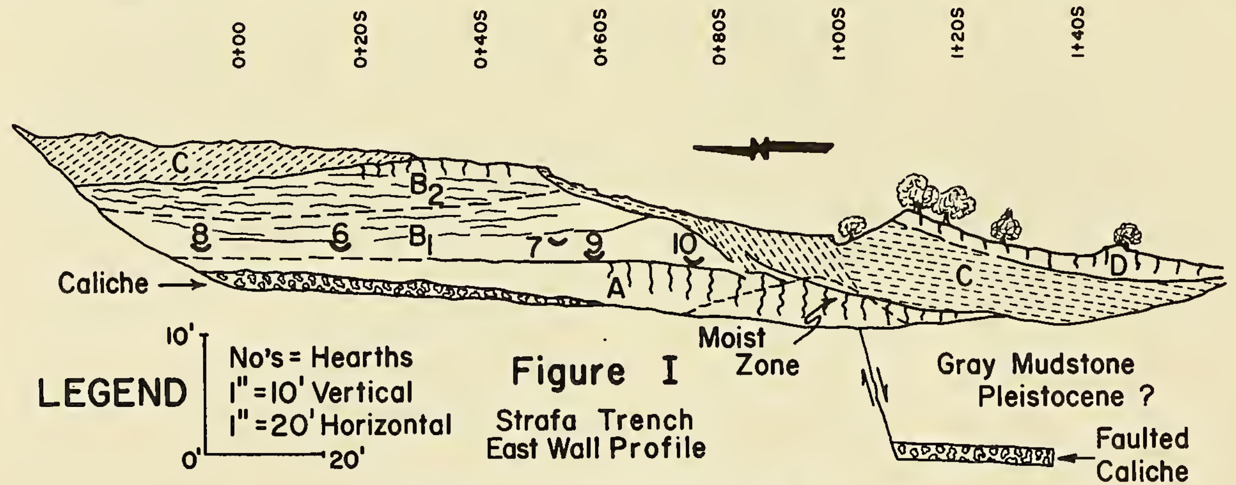
Site Cl-243 is situated in the center of section 28, T17S/R59E, on the Corn Creek Springs Quadrangle, Clark County, Nevada (see Map 1). The site datum is 5,080 feet, 312°45' magnetic north, from the U.S.G.S. bench marker at the Corn Creek Field Station. The elevation is approximately 2,901 feet.

The site is located in Las Vegas Valley, an intermontane basin running northwest-southeast. To the north the Pintwater, Desert, Sheep, and Las Vegas Ranges parallel each other in a north-south direction. The Spring Mountains, running in a northwest-southeast direction, form a barrier to the south. The highest point in the Spring Mountains is Charleston Peak, with an altitude of 11,910 feet. The highest point in the Sheep Range is Hayford Peak, 9,920 feet high.

These ranges were formed by uplift, the crust being broken into great blocks that were variously tilted in direction and degree, thus forming the steep-sided ranges and the intervening basin, Las Vegas Valley. Continuous erosion has removed vast quantities of rock from the mountain blocks, chiefly sedimentary limestone and dolomite, and much of the resulting gravel, sand and finer sediment has been deposited in the valley, forming great alluvial fans (Longwell 1961: 47-50).

The low point of the valley floor is Las Vegas Wash, which lies at the point of convergence of the alluvial fans. Cl-243 is situated one mile north of the Las Vegas Wash on what is believed to be a fault escarpment (see Fig. 1) that parallels the Wash at the Corn Creek area (Vance Haynes, personal communication). The land uplifted about ten feet by the fault is particularly subject to eolian activity and deposition by the prevailing south or southwesterly winds whose velocity may reach 80 miles an hour. The winds ascending the fault escarpment have deposited sand over the escarpment to form an extensive dune field leeward of the fault. Spring openings are found intermittently along the fault line. The water is able to flow to the surface through structural weaknesses in the underlying strata. (A more detailed report on the geology of the Corn Creek dune field is being prepared by Vance Haynes.) The site is located in this area of sand dunes, specifically, a blowout surrounded by hilly dunes to the north, east, and west (see Map 2 and Pl. 1). A lithic industry, burned caliche and limestone, and charcoal were apparent on the surface of this blowout (see Map 3).

FIGURE 1



STRATA DESCRIPTION

D	Loose fine to medium quartz sand with weak medium to coarse irregular prismatic soil structure and modern plant roots
Deflation	
C	Loose to weakly compacted, tan, fine to medium cross bedded sand with dispersed caliche pebbles and carbonaceous layers. Eolian sand deposited by southwesterly wind probably after 2,000 B.P.
Deflation	
B_1	Tan weakly compacted fine quartz and caliche sand with interlaminated silty clay layers in upper half and cross bedded in lower half with weak very coarse prismatic soil structure becoming stronger and platy in the upper six inches. Eolian sand with mudstone layers probably formed during strong rains.
B_2	Tan weakly compacted fine quartz and caliche sand with interlaminated silty clay layers in upper half and cross bedded in lower half with weak very coarse prismatic soil structure. Eolian sand with mudstone layers probably formed during strong rains. Intermitten occupation of dunes during early dune formation between 5,200 - 4,030 B.P.
Deflation	
A	Compact tan to grayish brown clayey silt and fine sand with moderatly strong coarse irregular soil structure at the top in moist area about the fault. Eolian deposition with local vegetation held by spring moisture. Great then 5,000 B.P.
	Caliche of probable Pleistocene age and faulted in late Pleistocene, possibly late Wisconsin time.

CLIMATE AND WATER DATA

A cluster of radiocarbon dates from 5,200 ± 100 B.P.-4,030 ± 100 B.P. (UCLA 525, 526, 531-535: 1963), indicate that the site was occupied during the Altithermal Period, which occurred 7,500-4,000 years ago. The climate during that period was hotter and drier than at present. Annual mean temperatures during the first part of the period rose to a maximum of probably no more than four degrees above present mean temperatures (Antevs 1955: 317-35). The amount of precipitation for this period is unknown (Moone 1958: 107). The Medithermal, which followed, 4,000 years ago to present, had conditions simulating present day climates. Deevey and Flint (1957: 182-84) extend the Altithermal of Antevs' to 9,000-2,600 B.P. calling it the Hypsithermal. More recently, Paul S. Martin (1963: 67-73) suggests on the basis of pollen evidence that the Altithermal was wetter, not drier and hotter, than the present.

Today the summer is characteristically long and hot and the winter, November through March, short and mild. The following temperature data is taken from a United States Weather Bureau Report (Brown 1960) and is based on the period 1931-1952:

		Corn Creek	Las Vegas
Mean Maximum Temp.	January	56°F.	56°F.
Mean Minimum Temp	January	28°F.	32°F.
Mean Maximum Temp.	July	100°F.	104°F.
Mean Minimum Temp.	July	64°F.	76°F.

The mean annual temperature of Las Vegas (approximately 26 miles southeast) is 66.8°F. The mean annual temperature of Corn Creek should very closely approximate the Las Vegas figure.

The prevailing winds are southerly or southwesterly.

The heaviest precipitation takes place during December, January, February, and during July and Augst when occasional cloudbursts and thunderstorms occur. Annual precipitation varies from less than four inches on the valley floor to more than 18 inches on the higher slopes. The Spring Mountains have a comparatively good water supply consisting of small springs and a few permanent streams. Water is scarce in the Sheep Range where there are no streams and the springs in most cases are only slowly dripping seeps (Desert Game Range Leaflet 26).

Corn Creek is a year round spring found about one mile from the site. The other water sources found in the proximity of the site area are spring mounds, many of which are now inactive, but at the time of occupation were active springs. Corn Creek and the spring mounds were undoubtedly the water sources used by the people who occupied the site.

FLORA

Cl-243 lies within a Shadscale Scrub plant community. This community consists of low bush formation of fairly open nature, the prevailing colors being gray-green and gray-brown. The flora is xerophytic: characteristically woody, small leaved, scrubby brush.

The plants found on the site are: saltbush or shadscale (*Atriplex confertifolia*), honey mesquite (*Prosopis juliflora*), hop sage (*Grayia spinosa*), matrimony vine (*Lycium andersonii*), winter fat (*Eurotia lanata*), goldenhead (*Acamptopapus shockleyi*), burrow brush (*Hymenoclea salsola*), green molly (*Kochia americana*), bur sage (*Franseria dumosa*), creosote bush (*Larrea diviracata*), and scurf pea (*Dallea polyadenia*).

The following plants that are growing on the site are listed by Steward (1938: 14-32) as having been utilized as food sources by Indians of Nevada: saltbush (*Atriplex confertifolia* Torr. and Frem.) yielded seeds. Matrimony vine (*Lycium andersonii* Gray) produced berries which could be stored when dried. Honey mesquite (*Prosopis juliflora* (Swartz) DC.) was reported to have been important to the Pahrump and Las Vegas Paiutes. Kearney and Peebles (1960: 402) state that this plant has been a mainstay to the native inhabitants of the southwest. A meal, *Pinole*, was made from the pods as was an intoxicating drink. The inner bark was used medicinally and for material for basketry and coarse fabrics. Kearney and Peebles (1960: 255) also report that the seeds of the saltbushes (*Atriplex*) were used as a source of meal.

The following plants present on the site are listed by Train, Henrichs, and Archer (1957) as having been used for medicinal purposes by the Paiutes of southeastern Nevada: Bud sage (*Artemisia spinescens* D. C. Eaton), swelling, rashes and haemorrhages; winter fat (*Eurotia lanata* Pursh), eye soreness and hair and scalp tonic; creosote (*Larrea divericata* Cav.), most favored source of remedies of Indians of the Clark County area, venereal diseases, colds, diuretic, sores, general cure-all; and scurf pea (*Dalea polyadenia* Torr.), colds, coughs, tuberculosis, pneumonia, influenza, smallpox, and numerous other ailments.

There are many well defined life zones within twenty miles of the site area, encompassing the Sheep Range approximately six miles to the northeast and the Spring Range approximately six miles to the southwest. Valley vegetation zones vary with elevation from shadscale, creosote bush, and mesquite to the yucca flats and forests. Vegetation zones found on the mountains are pinyon-juniper, yellow pine-mountain mahogany, ponderosa and bristle-cone pine types to above timberline on Charleston Peak.

At lower altitudes during moist years, several grasses provided seeds for food: wheat grass (*Agropyron*), red-top grass (*Agrostis*), blue grass (*Poa*), and needlegrass (*Stipa*) (Shutler 1961: 3). Yucca, growing at a transitional altitude, was utilized as a source of food and as raw material for items such as rope and sandals. At higher elevations, in the Spring and Sheep Ranges, numerous stands of pinyon are found; its nuts must have been of great importance as a food resource. Edible bulbs, roots, and camus must also have been utilized.

The ranges of altitude, with their corresponding plant communities, within a relatively small area, made available a great variety of plant materials. It is probable that the existing vegetation is virtually the same as that present in aboriginal times and that the Indians were no less aware of them as sources of food, raw materials and *materia medica*.

FAUNA

The mammals present in the immediate vicinity of the site today are: black-tail jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), valley pocket gopher (*Thomomys bottae*), little pocket mouse (*Perognathus longimembris*), Merriam kangeroo rat (*Dipodomys merriami*), Great Basin kangeroo rat (*Dipodmys microps*), desert kangeroo rat (*Dipodomys deserti*), cactus mouse (*Peromyscus eremicus*), southern grasshopper mouse (*Onychomys torridus*), desert woodrat (*Neotoma lepida*), coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), gray fox (*Urocyon cinereoargenteus*), badger (*Taxidea taxus*) and bobcat (*Lynx rufus*). Mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are found in the neighboring mountain ranges (Dr. Charles Hansen, personal communication; Desert Game Range Leaflet 309 1962).

The birds present at lower elevations are well represented by Gambels quail (*Lephortyx gambelii*), western kingbird (*Tyrannus verticalis*), horned lark (*Otocoris alpestris*), raven (*Corvus corax*), and nighthawk (*Chordeiles virginianus*). On higher slopes where trees are present, some of the resident birds are: pinyon jay (*Cyanocephalus cyanocephalus*), scrub jay (*Cyanocitta stelleri*), titmouse (*Baeolophus inornatus*), and bushtit (*Psaltiparus minimus*) (Desert Game Range Leaflet 132R2 1961).

Lizards are numerous. Several species of snakes are found, as is the desert tortoise (Gopherus agassizi).

Most of the fauna listed would have served as sources of food. The faunal remains at Stuart Rockshelter (Shutler and others 1960: 11) indicate that the earliest inhabitants hunted deer or antelope, jackrabbit and tortoise. Mountain sheep were taken by the Anasazi people of Lost City (Shutler 1961: 7) and the Southern Paiute (Stewart 1938: 184). Rodents and lizards were also eaten by the Southern Paiute (Shutler and Shutler 1962: 5).

The faunal remains of horse, cow, and coyote (Canis latrans) were identified and abandoned in the field.

Two small bone fragments were found among the stone refuse in the laboratory. One is an unidentifiable bird or small mammal bone fragment; the other is a burned mandible fragment, probably of a blacktail jackrabbit (Lepus californicus).

Robert Orlins returned to the site during September, 1963 and found the additional skeletal remains of desert tortoise (Gopherus agassizi) and Great Basin kangeroo rat (Dipodmys microps); they had been brought to the surface by the shifting of the sands. Dr. Charles Hansen, biologist at the Corn Creek Field Station, made the identification.

INVESTIGATION PROCEDURES

A three-foot contour map of the site locale, showing the limits of the site as determined by the surface distribution of cultural material, was made with the aid of a transit. A fifty-foot grid, extending well beyond the actual site surface area to insure complete coverage, was imposed upon the site with the north/south grid lines designated by letters and the east/west lines by numerals. Wooden stakes, used as reference points, were driven into the ground at the intersection of the grid lines. The permanent Datum was placed at the northwest corner of G-10, just north of the center of the site area. This Datum is 5,080 feet, 312°45' magnetic north from the U.S.G.S. Bench Marker at the Corn Creek Field Station (Map III).

For the purpose of recording data, a separate chart was drawn for each fifty-foot grid square, each of which was further broken down into ten foot squares. The surface distribution of cultural material was recorded upon these charts, located to the nearest foot (Table 3).

The cultural material which was collected from the surface consisted of all complete and fragmentary artifacts, all the chipping waste and stone refuse and charcoal samples from each hearth. This material was placed in bags marked by grid. After all surface features were recorded, each grid was raked in order that material covered by loose drift sand could be isolated. The resulting piles of sand were screened through one-quarter inch mesh. The only complete projectile point found on the site was recovered by this method.

The only surface features were six hearths, designated 1, 2, 3, 4, 5, and 11. These were screened through one-quarter inch mesh and charcoal samples were collected (Table 11). As Hearth 5 contained chipping waste just beneath the surface, a six by six foot pit, designated Pit 1, was laid out to encompass the hearth. Excavation of Pit 1 was carried out by six inch levels to a depth of 18 inches, where a compact, sterile bed of caliche was encountered. All material collected was bagged and labelled by pit and level (see Pl. 1, b, for example of a hearth in situ). The radiocarbon ages of the hearths dated are discussed in the chapter titled "Radiocarbon Dates".

In order to find the exact location of the fault line, and to allow the drawing of a comprehensive profile of the site area, a bulldozer was employed to excavate a northeast/southwest trench with a 17° east of north axis at the western edge of the site area. This trench was designated the north/south Strata Trench (Pl. 1, c). The bulldozer excated a trench 155 feet long, 12 feet wide and 10 feet deep by approximately two inch layers. An archaeologist followed behind the bulldozer at all times to search for and investigate all signs of cultural occupation as they were uncovered. Hearts 6, 7, 8, 9, and 10 were found in this manner. As soon as evidence of cultural material was sighted, the bulldozer was immediately stopped and the loose dirt in front of the bulldozer blade examined carefully. The area from which the cultural material derived was then further excavated with a trowel and the soil screened through one-quarter inch mesh. Adequate quantities of charcoal for radiocarbon dating and all other cultural material were collected, bagged, marked by hearth number and depth, and recorded. The hearths were also drawn upon the contour map at this time.

When the sterile caliche bed was reached at a depth of ten feet, Vance Haynes, Tule Springs Expedition geologist, carried out his investigations which included a drawing of a profile of the east wall of the Strata Trench (Fig. 1). After the profile was obtained the trench was backfilled, the soil leveled and packed solid by the bulldozer in order to insure the safety of grazing cattle and leave minimum evidence of the archaeological investigation.

In order to utilize the remaining time allotted for the bulldozer, an east/west trench, 262 feet long, and 12 feet wide, running ten feet south of grid line 11 was partially excavated (Map II). This trench was designated the east/west trench. The purpose was to uncover possible additional hearths. This trench was excavated to a depth of three feet; the caliche base was reached only at the extreme east end of the trench in the time allotted. No hearths were uncovered, and after the trench was backfilled by the bulldozer, work on the site was terminated.

Approximately 288 man hours were spent during the course of the field investigations by the four man crew. The bulldozer worked a total of 16 additional hours on the site. A catalogue of artifacts and the artifacts themselves are available for study at the Nevada State Museum, Carson City, Nevada.

DESCRIPTION OF ARTIFACTS

The section to follow is divided into several assemblages to facilitate description. Major assemblages are: small chipped stone, core tools, cobble flake tools, ground and pecked stone tools and post-contact artifacts. Numbers in parentheses following the artifact type signify the total number of artifacts and stone types represented. The following abbreviations are used in connection with artifact descriptions: lg. for length; wd. for width; th. for thickness; dia. for diameter, and av. for average. Table 1 gives a list of cultural material.

SMALL CHIPPED STONE. A total of 42 specimens is comprised of one projectile point, projectile point fragments, one projectile point reject, blades, pointed scrapers, side scrapers, convex scrapers, one concave scraper, concavo-convex scrapers, one scraper plane, one multi-purpose scraping tool, and used flakes.

Projectile Point (1) This obsidian point is leaf-shaped with convex sides and a shallow, thinned concave base. It is percussion flaked with no pressure retouch and is lenticular in cross-section (Pl. 2, a).

lg.	3.1 cm.
wd.	1.4 cm.
th.	0.5 cm.

Projectile Point Fragments (5). All of these chert specimens are bifacially modified and lenticular in cross-section as seen at the break (Pl. 2, b-f).

1. Tip; modified by percussion flaking. This specimen is from the 6-12 inch level of Pit 1.
2. Medial section; triangular, controlled percussion flaking.
3. Medial section; long, triangular, crude percussion flaking.
4. Medial section; modified by percussion flaking.
5. Medial section; controlled percussion flaking.

lg.	1.7-4.1 cm.	av. 2.0 cm.
wd.	1.1-1.8 cm.	av. 1.7 cm.
th.	0.4-0.6 cm.	av. 0.5 cm.

Projectile Point Reject (1) This crude and thick chert specimen is leaf-shaped and lenticular in cross-section. The base is missing. The non-homogeneity of the stone caused differential fracturing (Pl. 2, g).

lg.	3.2 cm.
wd.	1.8 cm.
th.	0.9 cm.

Blades (4) One of the examples is a convex base fragment and the other three are medial sections. All of these chert tools are bifacially flaked by controlled percussion and are lenticular in cross-section. Two of the specimens are from the 6-12 inch level of Pit 1 (Pl. 2, h-k).

lg.	2.4-2.9 cm.	av. 2.5 cm.
wd.	1.6-2.9 cm.	av. 2.9 cm.
th.	0.5-0.7 cm.	av. 0.6 cm.

Pointed Scrapers (5) Fashioned from chert flakes, each of these specimens possesses two worked sides which meet in points ranging from blunt to sharp. All five show some modification by pressure flaking (Pl. 3, a-c).

lg.	2.4-3.1 cm.	av. 2.9 cm.
wd.	1.5-2.3 cm.	av. 1.5 cm.
th.	0.3-0.7 cm.	av. 0.4 cm.

Side Scrapers (5) Fashioned from chert flakes, these tools possess one or more working edges. All the specimens are modified by fine pressure retouch flaking on one or more edges. All are worn from use (Pl. 3, d-f).

lg.	2.9-4.4 cm.	av. 4.2 cm.
wd.	2.0-3.6 cm.	av. 2.1 cm.
th.	0.4-0.9 cm.	av. 0.6 cm.

Convex Scrapers (3) Fashioned from chert flakes, one of the three is modified by fine pressure retouch flaking. One specimen is a bifacially flaked reject (the stone is rotten at the break), (Pl. 3, g, h, i).

lg.	2.4-3.4 cm.
wd.	0.9-3.0 cm.
th.	0.4-1.5 cm.

Concave Scraper (1) Fashioned from a chert flake, this tool possesses two concave working edges which meet at a point. Both edges are modified by fine pressure retouch flaking. This specimen is from the 6-12 inch level of Pit 1 (Pl. 3, j).

lg.	3.6 cm.
wd.	2.7 cm.
th.	1.8 cm.

Concavo-Convex Scrapers (2) One of these tools is a quartzite flake, modified by percussion flaking on one convex and two slightly concave edges. The other is a chert flake which is modified along one convex edge by fine pressure retouch flaking and shows wear on one concave edge (Pl. 3, *k*-*l*).

lg.	3.6-5.5 cm.
wd.	2.0-4.2 cm.
th.	0.4-2.1 cm.

Scraper Plane (1) This chert scraper plane is a high-domed, flat-based tool with pressure retouch flaking from the base at a steep angle along one edge (Pl. 3, *n*).

lg.	2.1 cm.
wd.	2.1 cm.
th.	1.6 cm.

Multi-Purpose Scraping Tool (1) This chert specimen has been bifacially percussion flaked along two edges. One edge is a straight scraper edge and the other a convex cutting edge. There is also use wear on one end (Pl. 3, *m*).

lg.	5.0 cm.
wd.	2.1 cm.
th.	1.1 cm.

Used Flakes (13) Chert flakes of random size have been utilized. Each flake possesses one or more convex, straight or concave edges, each of which shows wear.

lg.	1.3-5.1 cm.	av.	3.9 cm.
wd.	0.7-3.7 cm.	av.	2.9 cm.
th.	0.1-1.5 cm.	av.	2.1 cm.

CORE TOOLS. A total of 59, including hammerstones, bifaced choppers, scraper planes, and small and large cores.

Hammerstones (13; five dolomite, five quartzite, one limestone, two chert) Twelve of these hammerstones, including seven fragmentary specimens, are percussion flaked cores which show varying degrees of battering on one or more edges. One specimen is a whole cobble (Pl. 4, *a*-*f*).

lg.	4.5-9.9 cm.	av.	6.9 cm.
wd.	2.4-8.6 cm.	av.	6.2 cm.
th.	1.9-5.5 cm.	av.	4.3 cm.

Bifaced Choppers (12; five dolomite, three quartzite, three limestone, one chert) These specimens (two of which are fragments) are ovoid to rectangular in outline and lenticular in cross-section. The working edges of these implements are convex and average three-quarters of the overall circumference. Six of the tools are cores and six are cobble fragments.

The method of manufacture was to strike large flakes alternately from the two faces by rough percussion flaking, producing a sharp, ragged cutting edge. An average of one-quarter of either the original surface or the percussion flaked surface forms the grip. The cutting edges of nine of these tools show wear. Three of the specimens are battered on one or more surfaces from possible secondary use as hammerstones (Pl. 5, a-f).

lg.	6.4-9.4 cm.	av. 7.5 cm.
wd.	5.3-8.6 cm.	av. 6.1 cm.
th.	2.5-5.5 cm.	av. 4.3 cm.

Scraper Planes (22; twelve dolomite, five quartzite, four limestone, one basalt) Each of these tools possesses a flat or semi-flat base suitable for a planing surface. The bases are ovoid to rectangular in outline and the backs domed and high. The working edges of these tools vary from straight to convex in shape and average one-half the circumference of the base (Pl. 6, b-d; Pl. 7, a-f).

The method of manufacture was to strike large flakes at a steep angle from the base of a core or cobble fragment to form the scraping edge. Half of the specimens have been resharpened by small secondary percussion flaking at the base.

Of special interest is a massive, keeled dolomite scraper plane which tapers to a beak and shows a wear pattern of polish and striation on the base (Pl. 6, a). This tool, found 150 feet from the closest artifact in the main body of the site, was discovered after a wind storm, partially buried in loose sand.

Six of the tools show a blunted edge which indicates possible secondary use as choppers. Four others have been battered on one or more surfaces suggesting secondary use as hammerstones. One specimen is a fragment of a scraping edge.

lg.	6.7-14.1 cm.	av. 9.5 cm.
wd.	3.3-12.0 cm.	av. 7.6 cm.
th.	2.3-7.3 cm.	av. 5.1 cm.

Small Cores (6; five chert, one limestone) On these six examples, flakes have been removed from the major portion of the periphery of each (Pl. 8, a, b, c).

lg.	3.1-5.9 cm.	av. 4.8 cm.
wd.	1.9-4.5 cm.	av. 3.1 cm.
th.	1.7-3.0 cm.	av. 2.5 cm.

Large Cores (6; three limestone, two quartzite, one dolomite) These are large cobbles from which flakes have been struck off by percussion. None appear to have been used as tools (Pl. 8, d, e, f). Two cores were recovered from Hearth 10.

lg.	6.3-10.0 cm.	av. 8.5 cm.
wd.	5.2-8.8 cm.	av. 5.7 cm.
th.	3.9-7.0 cm.	av. 5.4 cm.

COBBLE FLAKE TOOLS. A total of 14 specimens, including knives and scrapers.

Cobble Flake Knives (8; three chert, two dolomite, two quartzite, one limestone) All of these flake tools share one characteristic: they have a ledge-like shelf or platform where the index finger of the right hand can rest comfortably so that the sharp edge showing wear is in position for cutting (Pl. 9, b, c, d).

Six of these tools are unmodified flakes with convex to straight cutting edges which show wear.

The seventh is a large, backed bulbar flake with small percussion flakes removed along the slightly convex edge (Pl. 9, a).

The eighth is an unmodified fragment of a scraper plane.

lg.	3.9-8.6 cm.	av. 6.8 cm.
wd.	3.3-5.5 cm.	av. 3.6 cm.
th.	1.2-2.0 cm.	av. 1.7 cm.

Cobble Flake Scrapers (6: two quartzite, one chert, one dolomite, one basalt, one limestone) Four of these specimens are unmodified flakes with slightly concave to convex scraping edges (Pl. 9, g-h).

The fifth is a convex scraper, modified along one side of the convex edge by percussion (Pl. 9, e).

The last specimen, an end scraper, has been thinned by shallow percussion flaking to form a working edge at the narrow end of a long flake (Pl. 9, f). All six show wear.

lg.	4.4-9.4 cm.	av. 7.6 cm.
wd.	3.6-5.6 cm.	av. 4.6 cm.
th.	1.3-3.3 cm.	av. 2.2 cm.

GROUND AND PECKED STONE. A total of 57 specimens, including milling stones (slab and basin), hand stones and pestles.

Fragmentary Slab Milling Stones (2; quartzite, sandstone) These specimens are large, flat slabs of stone, somewhat ovoid in outline. Both possess unifacial, flat grinding surfaces which are resharpened by shallow pecking and show polish (Pl. 10, a, b).

lg. 23.7-28.6 cm.
wd. 13.6-19.1 cm.
th. 2.1-3.1 cm.

Slab Milling Stone Fragments (43; 30 sandstone, eight limestone, five quartzite) These specimens are all fragmentary, generally flat, unworked slabs of stone, ovoid in outline. They have either a flat or slightly concave grinding surface which is also ovoid in outline. Three of the examples have been crudely shaped around the perimenters.

Sixteen of the specimens have been utilized on both flat sides. Nineteen have been resharpened by shallow pecking which is centered on the grinding surface. All 43 fragments show polish.

lg. 1.9-19.1 cm. av. 9.5 cm.
wd. 2.2-13.6 cm. av. 8.0 cm.
th. 0.5-4.5 cm. av. 2.5 cm.

Basin Milling Stones (5; three quartzite, two sandstone) One complete milling stone and four fragments are represented. The whole specimen is a block of quartzite with very little shaping. It is ovoid in outline. The slightly concave grinding surface which is also ovoid in outline extends to both narrow edges of the stone. On the long sides, the shoulders are unshaped (Pl. 11). All five specimens have been resharpened by pecking.

Measurements are for the whole specimen.

lg. 28.0 cm.
wd. 19.8 cm.
th. 8.3 cm.

Hand Stones (5; four sandstone, one quartzite) Of these five fragmentary specimens, two are bifacial. All are ovoid to rectangular in outline and cross-section and show polish. None of these hand stones have been pecked for sharpening (Pl. 12, a-c).

lg. 5.2-8.9 cm. av. 7.6 cm.
wd. 1.6-5.4 cm. av. 4.5 cm.
th. 4.1-6.1 cm. av. 4.1 cm.

Pestles (2) Of these two fragmentary specimens, one is a medial section of vesicular basalt, fractured vertically; the remaining one-half circumference is semi-circular in cross-section. The tool was pecked to shape (Pl. 12, d).

The second pestle is a medial section of dolomite. It is circular in cross-section and tapers at one end. It is ground and pecked to shape (Pl. 12, e).

lg. 6.9-15.0 cm.
dia. 5.9-7.3 cm.

Post-Contact Artifact (1) A lead bullet, that was fired from a .38 caliber Smith and Wesson hand gun, was found. The gun had six grooves and a right hand twist. It was first manufactured in the mid 1800's and is still being produced.

lg. 1.7 cm.
wd. 0.9 cm.
weight 144 grains

Off-Site Artifacts For discussion and description, see Appendix A.

Table 1 : List of Cultural Material (Cl-243)

Small Chipped Stone (42)

1 projectile point
5 projectile point fragments
1 projectile point reject
4 blades
5 pointed scrapers
5 side scrapers
3 convex scrapers
1 concave scraper
2 concavo-convex scrapers
1 scraper plane
1 multi-purpose scraping tool
13 used flakes

Core Tools (59)

13 hammerstones
12 bifaced choppers
22 scraper planes
6 small cores
6 large cores

Cobble Flake Tools (14)

8 cobble flake knives
6 cobble flake scrapers

Ground and Pecked Stone (57)

45 slab milling stone fragments
5 basin milling stones
5 hand stones
2 pestles

Post-Contact Artifacts (1)

1 bullet

Table 2

QUANTITATIVE DISTRIBUTION OF MATERIALS USED FOR ARTIFACTS

Artifacts	Chert	Limestone Dolomite	Quartzitic	Sandstone	Basalt	Vesicular Basalt	Obsidian
Projectile Points (including fragments and reject)	6	-	-	-	-	-	1
Blades	4	-	-	-	-	-	-
Knives	3	3	2	-	-	-	-
Scrapers	18	1	3	-	1	-	-
Scraper Planes	1	16	5	-	1	-	-
Hammerstones	2	16	5	-	-	-	-
Choppers	1	8	3	-	-	-	-
Cores	5	5	2	-	-	-	-
Used Flakes	13	-	-	-	-	-	-
Fragmentary Milling Stones	-	-	1	1	-	-	-
Milling Stone Fragments	-	8	5	30	-	-	-
Hand stones	-	-	1	4	-	-	-
Pestles	-	1	-	-	-	1	-

Table 3

Cl-243 : Distribution of Artifacts by Grid

	C-11	D-9	D-10	D-11	D-12	D-13	E-9	E-10	E-11	E-12	F-7	F-10	F-11	G-11	H-9	H-10	H-11	I-9	I-10	Total
Small Chipped Stone																				
projectile points	_	_	_	_	_	_	_	1	2	_	_	1	2	_	_	_	_	_	_	6
blades	_	_	_	_	_	_	_	1	1	_	_	_	_	_	_	_	_	_	_	2
pointed scrapers	_	_	_	_	_	_	_	1	3	_	_	_	_	_	_	1	_	_	_	5
side scrapers	_	_	_	_	_	_	_	_	1	_	_	_	1	_	1	_	_	_	2	5
convex scrapers	_	_	_	_	_	_	_	_	2	_	_	_	_	_	_	1	_	_	_	3
concavo-convex	_	_	_	_	_	_	_	_	1	_	_	_	_	_	_	_	1	_	_	2
scraper plane	_	_	_	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	_	1
multi-purpose	_	_	_	_	_	_	_	_	1	_	_	_	_	_	_	_	_	_	_	1
used flakes	_	_	3	1	_	_	_	_	2	_	_	_	2	2	_	_	1	_	_	11
Total	_	_	3	1	_	_	_	4	13	_	_	1	5	2	1	2	2	_	2	36
Core Tools																				
hammerstones	_	_	1	2	_	_	2	1	6	_	_	_	_	_	_	1	_	_	_	13
choppers	_	_	2	1	1	_	_	2	1	_	_	_	3	_	_	_	1	_	1	12
scraper planes	3	1	3	1	_	1	_	2	4	_	1	_	2	_	_	_	2	_	2	22
small cores	_	_	_	1	_	_	_	_	2	_	_	_	2	_	_	1	_	_	_	6
large cores	_	_	_	1	_	_	_	_	1	_	_	_	2	_	_	_	_	_	_	4
Total	3	1	6	6	1	1	2	5	14	_	1	_	9	_	_	2	3	_	3	57

Table 3 Cl-243 : Distribution of Artifacts by Grid (cont.)

Cobble Flake Tools	C-11	D-9	D-10	D-11	D-12	D-13	E-9	E-10	E-11	E-12	F-7	F-10	F-11	G-11	H-9	H-10	H-11	I-9	I-10	Total
knives	-	-	-	2	-	-	-	1	3	-	-	-	2	-	-	-	-	-	-	8
flake scraper	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	4
convex scraper	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
end scraper	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Total	-	-	-	4	-	-	-	2	5	-	-	-	3	-	-	-	-	-	-	14
Ground and Pecked Stone																				
fragmentary slab	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
slab fragments	2	-	6	1	-	4	-	2	14	1	-	-	6	-	-	-	5	-	-	41
basin	-	-	-	1	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	5
hand stones	-	-	2	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	-	5
pestles	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2
Total	2	-	9	2	-	5	-	3	20	1	-	-	6	-	-	-	6	1	-	55
Non-Aboriginal																				
projectile remain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Total of Surface finds	5	1	18	13	1	6	2	14	52	1	1	1	23	2	2	4	11	1	5	163
Total Pit 1 (Grid H-11)·		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6
Total Hearth 10 (Grid C-11).			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Grand Total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	173

Table 4

CL-243: Measurements of Small Chipped Stone Tools

	No.of Specimens	Length(cm.) max.min.	Width(cm.) min.max.	Thickness(cm.) min.max.
projectile points	1	3.1	1.4	0.5
projectile point frags	5	1.7- 4.1	1.1- 1.8	0.4- 0.6
projectile point reject	1	3.2	1.8	0.9
blades	4	2.4- 2.9	1.6- 2.9	0.5- 0.7
pointed scrapers	5	2.4- 3.1	1.5- 2.3	0.3- 0.7
side scrapers	5	2.9- 4.4	2.0- 3.6	0.4- 0.9
convex scrapers	3	2.4- 3.4	0.9- 3.0	0.4- 1.5
concave scraper	1	3.6	2.7	1.8
concavo-convex scrapers	2	3.6- 5.5	2.0- 4.2	0.4- 2.1
scraper plane	1	2.1	2.1	1.6
multi-purpose scraper	1	5.0	2.1	1.1
used flakes	13	1.3- 5.1	0.7- 3.7	0.1- 1.5

Table 5

CL-243: Measurements of Core Tools

hammerstones	13	4.5- 9.9	2.4- 8.6	1.9- 5.5
bifaced choppers	12	6.4- 9.4	5.3- 8.6	2.5- 5.5
scraper planes	22	6.7-14.1	3.3-12.0	2.3- 7.3
small cores	6	3.1- 5.9	1.9- 4.5	1.7- 3.0
large cores	6	6.3-10.0	5.2- 8.8	3.9- 7.0

Table 6

CL-243: Measurements of Cobble Flake Tools

	No. of Specimens	Length (cm.) min.-max.	Width (cm.) min.-max.	Thickness(cm.) min.-max.
knives	8	3.9-8.6	3.3-5.5	1.2-2.0
scrapers	6	4.4-9.4	3.6-5.6	1.3-3.3

Table 7

CL-243: Measurements of Ground and Pecked Stone Tools

milling stones				
fragmentary slab	2	23.7-28.6	13.6-19.1	2.1-3.1
slab fragments	43	1.9-19.1	2.2-13.6	0.5-4.5
basin*	5	28.0	19.8	8.3
hand stones	5	5.2-8.9	1.6-5.4	4.1-6.1
pestles	2	6.9-15.0	4.9-7.3	4.9-7.3

*measurements for whole specimen

STONE REFUSE

All of the stone refuse and chipping waste was saved during the course of the excavation. A total number of 4,333 individual specimens were segregated by stone type: sedimentary rocks consisted of cryptocrystalline cherts and chalcedonic varieties, limestone and dolomitic types and sandstone; metamorphic rocks are quartzitic; and the igneous rock is vesicular basalt.

The following abbreviations are used: lg. for length; wd. for width; th. for thickness; av. for average.

A. Sedimentary

1. Cherts and chalcedonic varieties: 3,023 specimens.
lg. 0.7 to 7.5 cm. av. 2.5 cm.
wd. 0.6 to 5.6 cm. av. 2.1 cm.
th. 0.1 to 3.2 cm. av. 0.8 cm.

2. Limestone and dolomitic types: 1,146 specimens
lg. 0.8 to 9.9 cm. av. 3.5 cm.
wd. 0.7 to 6.2 cm. av. 2.5 cm.
th. 0.2 to 6.0 cm. av. 1.0 cm.

3. Sandstone: 74 specimens
lg. 1.5 to 9.3 cm. av. 5.0 cm.
wd. 1.3 to 6.7 cm. av. 4.2 cm.
th. 0.5 to 4.0 cm. av. 2.5 cm.

B. Metamorphic

1. Quartzitic: 67 specimens
lg. 1.0 to 7.5 cm. av. 3.6 cm.
wd. 0.8 to 6.9 cm. av. 3.2 cm.
th. 0.3 to 5.5 cm. av. 2.5 cm.

C. Igneous

1. Vesicular basalt: 23 specimens
lg. 0.3 to 2.7 cm. av. 0.8 cm.
wd. 0.2 to 2.3 cm. av. 0.5 cm.
th. 0.2 to 1.6 cm. av. 0.5 cm.

The cherts are predominantly greenish or grayish-green. White, purple and banded varieties are also present. The textures vary from very fine-grained to more coarsely crystalline. This material appears to have been used primarily in the production of small tools possessing pointed or sharp knife-like cutting or scraping edges. These tools were made by the controlled percussion technique; fine pressure retouch is also evident on many of the artifacts. The use of these techniques may account for the large amount of small, thin chert and chalcedonic flakes in the débitage. (See Table 8).

The wide range of colors and textures in the limestone and dolomitic material is caused by varying percentages of magnesium and other elements that are present. Since these rocks are denser, heavier and occur as more massive cobbles, they were utilized for the larger scraping and pounding tools. These tools were fashioned by rough, direct percussion. Fewer but larger flakes were removed from the worked piece, thereby accounting for the proportions illustrated by Table 10.

The quartzitic rocks are generally a light color and coarsely crystalline in texture. They were often also utilized for the more massive tools like the limestone and dolomitic rocks. The more coarsely crystalline varieties were also used for grinding implements such as milling stones and manos, providing a good abrading surface.

The red and white sandstones were used exclusively in the manufacture of grinding implements. The comparatively small amount of stone refuse collected of this material consists of chunks of rock that were probably broken from a larger piece to shape the milling stone or fragments of what might be the peripheral edges of milling stones broken through use.

The density and size of the vesicles of the vesicular basalt found in the stone refuse did not correspond with those of the vesicular basalt from which the pestle was made. This pestle was the only artifact found that was made of this material.

Only one obsidian artifact was found. No obsidian chipping waste was found. This suggests that this atypical tool may have been intrusive. An obsidian exposure is reported to be located southeast of Boulder City, which is approximately 60 miles southeast of Cl-243. Tertiary volcanics are known near Henderson, about 50 miles southeast of the Corn Creek Dunes Site (Bowyer, Pampeyen and Longwell 1958) and in an area 50 miles north of the site by way of the Alamo Road (Longwell 1930). The distances of the sources of igneous materials from the site would help account for their scarcity.

The other rocks used in the tool inventory are all available locally. The cherts, the quartzites, limestone and the dolomitic rocks are all found in the nearby Spring and Sheep Ranges (Nolan 1927; Bowyer and others 1958). Sandstone is present at Red Rock Canyon, approximately 15 miles southwest of the site (Shutler 1962: 17-18) and is also available in other areas of the Spring Range (Bowyer et al 1958).

TABLE 8

DISTRIBUTION OF MINERAL TYPE IN STONE REFUSE

Stone Material	Quantity	% of Total No.	Weight (Gms.)	% of Total Weight
Cherts	3,023	69.5	6,702.7	28.7
Limestone and Dolomotic	1,146	26.4	11,053.1	47.5
Sandstone	74	1.7	3,387.2	14.4
Quartzitic	67	1.6	2,112.5	9.3
Vesicular Basalt	23	.6	9.7	Trace
TOTAL	4,333	100.0	23,265.2	100.0

TABLE 9

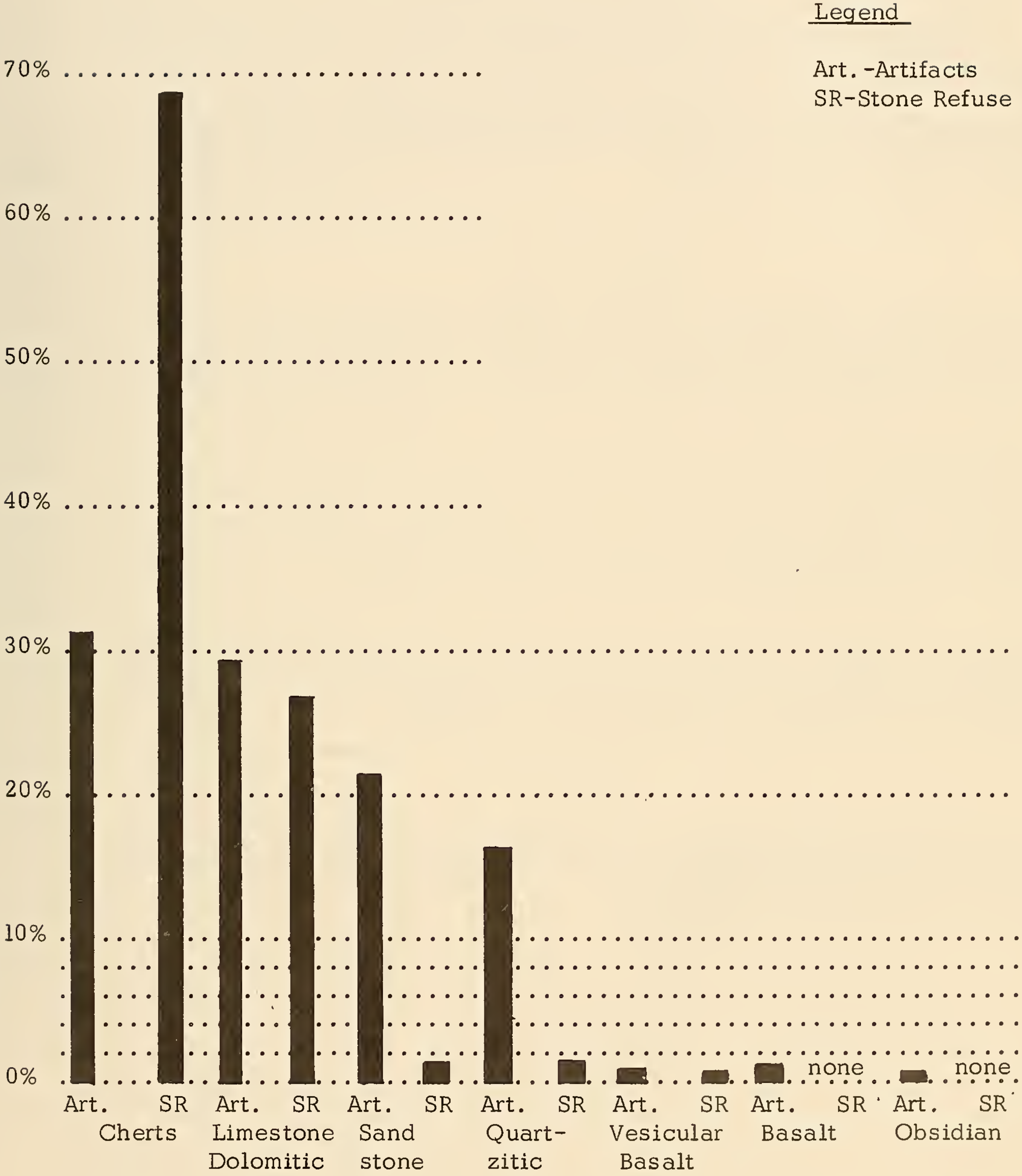
COMPARATIVE DISTRIBUTION OF STONE REFUSE AND ARTIFACTS BY GRID

Grid	Cherts		Limestone & Dolomitic		Quartzitic		Sandstone		Vesicular Basalt		Total Stone Refuse Per Grid		Total No. Artifacts Per Grid
	No.	Gms.	No.	Gms.	No.	Gms.	No.	Gms.	No.	Gms.	No.	Gms.	
C-11	1	0.1	0	.0	1	25.4	2	54.4	0	.0	4	79.9	5
D-9	6	12.5	0	.0	0	.0	0	.0	0	.0	6	12.5	1
D-10	263	388.7	30	93.6	2	139.0	4	462.5	0	.0	299	1,083.8	24
D-11	102	140.6	53	521.8	2	64.4	3	280.1	0	.0	160	1,006.9	13
D-12	8	52.2	0	.0	0	.0	0	.0	0	.0	8	52.2	1
D-13	2	1.7	1	299.8	0	.0	0	.0	0	.0	3	301.5	6
E-9	2	1.1	0	.0	0	.0	1	39.1	0	.0	3	40.2	2
E-10	323	414.4	52	804.0	2	49.7	4	511.4	0	.0	381	1,779.5	14
E-11	1,791	4,498.3	636	5,725.3	34	758.0	31	1,171.4	0	.0	2,492	12,153.0	56
E-12	92	55.5	11	9.7	1	0.6	0	.0	0	.0	104	65.8	1
F-7	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	1
F-10	25	13.1	26	90.8	0	.0	0	.0	0	.0	51	103.9	1
F-11	175	887.2	236	2,327.5	13	178.1	16	719.2	23	9.7	463	4,121.7	23
F-12	24	11.2	9	15.8	0	.0	0	.0	0	.0	33	27.0	0
G-10	4	6.8	1	2.3	1	113.8	0	.0	0	.0	6	122.9	0
G-11	5	21.7	10	6.9	0	.0	0	.0	0	.0	15	28.6	2
H-9	3	18.5	0	.0	0	.0	0	.0	0	.0	3	18.5	1
H-10	35	56.8	45	560.1	4	176.5	10	73.0	0	.0	94	866.4	4
H-11	155	105.7	18	195.5	3	266.0	2	54.5	0	.0	178	621.1	11
I-9	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	1
I-10	7	16.6	18	400.0	4	341.0	1	21.6	0	.0	30	779.2	5
Total	3,023	6,702.7	1,146	11,053.1	67	2,112.5	74	3,387.2	23	9.7	4,333	23,265.2	172

TABLE 10

COMPARISON OF MATERIALS USED FOR ARTIFACTS

WITH STONE REFUSE



HEARTHS

The features consisted of eleven hearths (Map III). In outline, they varied from circular to elongated oval, 18 to 24 inches wide and 18 to 84 inches long. They were bowl-shaped depressions with depths of from two to 18 inches.

Hearths 1, 2, 3, 4, 5 and 11 were surface features, while hearths 6, 7, 8, 9 and 10 were located at different depths in the northeast/southwest Strata Trench (Fig. 1). Only hearths 5 and 10 were found to contain cultural materials other than charcoal. Hearth 5 was designated Pit 1 when the decision was made to excavate. Charcoal samples were collected from all of the hearths (Table 11).

Hearth 5 Pit 1

0-6 inch level. The sand was light brown in color and contained a few roots. Within the hearth, among the burned caliche gravels, 133 chert flakes and six limestone flakes were recovered. A charcoal sample was collected for future analysis of plant materials within the hearth.

6-12 inch level. The sand was light brown in color, damp (rain had fallen a few days previous to excavation), and contained a few small roots. Within the hearth, among the burned caliche gravels, 80 chert flakes and the following artifacts were recovered: two used flakes, one concave scraper, two blade fragments and one projectile point tip.

12-18 inch level. The sand was damp, whitish-brown in color and coarse in texture. Within the hearth, among the burned caliche gravels, five chert flakes were recovered. The hearth ended at 18 inches where a compact, sterile bed of whitish-brown caliche was encountered.

Hearth 10

Other than charcoal, this hearth yielded 50 burned pieces of caliche gravels, 14 burned and fractured fragments of limestone, two limestone cores and two slab milling stone fragments.

RADIOCARBON DATES

Charcoal samples from seven of the hearths were dated by Professor Gordon Fergusson and Dr. Willard F. Libby at the Isotopic Laboratory, Institute of Geophysics at the University of California at Los Angeles. The initial samples were collected by Dr. Richard Shutler, Jr., Principal Investigator, and Vance Haynes, geologist with the Tule Springs Project. Additional samples were collected by Vance Haynes and the authors.

The samples consisted of clean lumps of charcoal that measured as much as one inch in diameter. They were packaged, labeled, and sealed in plastic bags at the site (See Table 11).

An effort is being made to identify the larger fragments of charcoal as to type of wood.

Table 12 presents a comparative analysis of the Corn Creek Dunes Site with other sites in the Great Basin. Most of the sites listed have a temporal affinity with Cl-243. An attempt was made to synthesize and list only the basic culture traits of the sites.

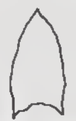
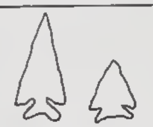
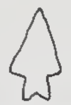
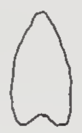
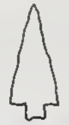
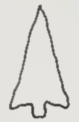
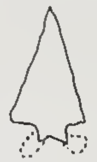
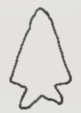
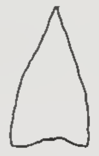
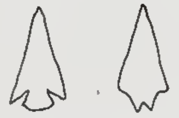
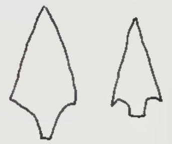
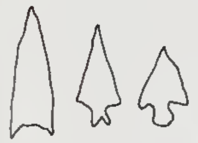
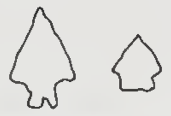
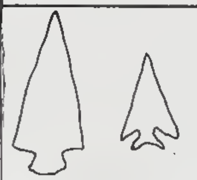
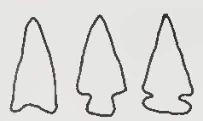
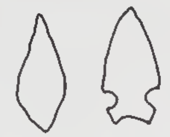
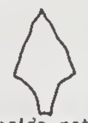
TABLE 11

C1-243: Hearths and Radiocarbon Dates

Hearth	Grid	Depth	Charcoal Sample Number	Radiocarbon Date	Associations
1	G-12	Surface	TS-C14-37 (UCLA 526:1963)	5200±100 B.P.	caliche gravels
2	H-11	Surface	- - - - - - - - - -	- - - - - - - - - -	caliche gravels
3	G-12	Surface	TS-C14-36 (UCLA 525:1962)	4440±100 B.P.	caliche gravels
4	G-12	Surface	- - - - - - - - - -	- - - - - - - - - -	caliche gravels
5	H-11	0-18"	- - - - - - - - - -	- - - - - - - - - -	- - - - - - *
6	D-10	48"	TS-C14-43 (UCLA 531:1963)	4580±100 B.P.	caliche gravels
7	D-10	42"	TS-C14-44 (UCLA 532:1963)	4610±100 B.P.	caliche gravels
8	D-10	102"	TS-C14-45 (UCLA 533:1963)	4900±100 B.P.	caliche gravels
9	C-11	42"	TS-C14-46 (UCLA 534:1963)	4380±100 B.P.	caliche gravels
10	C-11	30"	TS-C14-47 (UCLA 535:1963)	4030±100 B.P.	- - - - *
11	H-9	Surface	- - - - - - - - - -	- - - - - - - - - -	caliche gravels

* see discussion; page 31

TABLE 12 - COMPARATIVE TRAITS OF GREAT BASIN SITES

	S. Nevada Corn Creek Dunes Site	S.E.California Death Valley II Mesquite Flat Cultural Complex	S.E. California Little Lake (Stahl Site) Pinto Complex	S. Nevada Stuart Rockshelter Earliest Occupation Leval	S. Nevada Lost City, Moapa Phase Basketmaker II	W. Central Nevada Humboldt Cave Early Levels	W.Central Nevada Lovelock Cave Early Phase	W. Central Nevada 26-Pe-5	W.Central Nevada 26-Pe-8	W. Central Nevada Winnemucca Lake Caves	W.Central Nevada Leonard Rockshelter Leonard Culture	N.E. California Karlo Site Karlo Period	N.E. California Nev.-15 Martis Complex	W. Utah Danger Cave Levels IV & V	N.Central Utah Promontory Point Cave No. 2, Strata III & IV	N.Central Utah Black Rock Cave No. I, Black Rock Culture Levels	N.Central Utah Deadman Cave Levels III & IV	S.E. Oregon Klamath Lake Area Kawunkan Springs Site Level III	S. E. Oregon Paisley Cave No.1 Levels above pumice	S.E. Oregon Fort Rock Cave Levels above pumice
Date	5,200-4,030 B.P. Radiocarbon	5,000 B.P.-A.D. 0 Geological	4,000-3,000 B.P. Geological	4,050-3,000 B.P. Radiocarbon	2,260-1,460 B.P. Artifact Typology	1,950 B.P. Radiocarbon	4,000-3,000 B.P. Radiocarbon	During Humboldt & Lovelock occupation Span Artifact Typology	Lovelock Culture Basketry typology 2,000 B.P.	Lovelock Culture Basketry typology	5,780 B.P. Radiocarbon	4,000-2000 B.P. Shell beads & ornaments typology	3,460-1,360 B.P. Projectile Point Typology	4,900-3,820 B.P. Radiocarbon	3,000 B.P. Geological	Late pre-pottery Projectile point typology	3,000 or 2,500 B.P. Geological & projectile point typology	7,500-3,500 B.P. Geological & artifact typology	4,000 B.P. ? Geological	2,000 B.P. ? Geological
Type of Site	Surface	Surface	Village Deposit	Stratified Rockshelter	(Black Dog Cave) Stratified Cave and Pithouses	Cache Cave	Stratified Cave	Surface Workshop Area	Cache Cave	Caves	Stratified Cave	Stratified Open Site	Village Deposit	Stratified Cave	Stratified Cave	Stratified Cave	Stratified Cave	Village Midden	Cave Deposit	Cave Deposit
Subsistance Pattern	Hunting, gathering	Hunting, some gathering	Hunting, gathering	Hunting, gathering	Hunting, gathering		Hunting, gathering	Hunting, gathering, fishing	Hunting, gathering	Hunting, gathering, fishing		Gathering, hunting	Hunting, gathering	Hunting, gathering	Hunting, gathering	Hunting	Hunting, gathering	Hunting, gathering, fishing	Hunting, gathering	Hunting, gathering
Projectile Point Type	 Possibly Intrusive	 and leaf-shaped	 and leaf-shaped		 also: side and corner notched					None	None	 and leaf-shape			 and leaf-shape				Corner-notched	 also: side-notched, corner-notched and leaf-shape
Other Chipped Stone	Blades, Scrapers, Retouched Flakes	Blades, Scrapers, Drills	Knives, scrapers, drills, gravers	Blades, knives, scrapers	Knives, drills	Knives	Knives	Knives, scrapers, sinkers	None	None	None	Blades, knives, scrapers, crescents, retouched flakes	Blades, scrapers, drills	Knives	Blades, scrapers, retouched flakes	Knives, scrapers, retouched flakes	Knives, scraper, drills	Knives, scrapers, drills	Scrapers	Scrapers, drills
Heavy Percussion Flaked Tools	Hammers, choppers, scraper planes, cobble flake scrapers and knives	Hammers, choppers Scraper planes	Hammers, scrapers	None	Choppers, scrapers	Hammers	None	Hammers, choppers, scrapers, cobble scrapers & anvils	Hammer	None	None	Hammers, choppers? Scrapers?	Hammers, choppers, worked bones	None	None	None	Pinto type fist scrapers	Hammers, choppers, mauls, "Hot Rocks"	None	None
Grinding Tools	Milling Stones, hand stones, pesiles	Pestles, mortars	Milling Stones, Hand Stones	Milling Stones, Hand Stones	Hand Stone, mortar	Hand Stone ?	None Found	Hand Stones Hullers	None	None	None	Milling stones, hand stones, pestles, mortars	Milling stones, Hand stones, pestle, mortar	milling stones, hand stones	Hand stone	None	Milling stones Hand stones	Milling stones, hand stones, pestle, mortar	None found	Hand stone
Polished Stone	None	None	Charmstone ?	None	None	None	None	"Ice Picks" Rubbing Stones	None	None	None	Pipes, atlatl weights	Pipe, pendant	Abraders, beads	None	None	Shaft smoothers, weights	Atlatl weights ? Bead	None	None
Shell	None	None	Beads	None	None	None	Beads, pendants	None	None	None	None	Beads & ornaments	None	None	None	Abalone Ring	None	None	None	None
Worked Bone	None	None	Awl, bead	None	None	Awls, sickles, scapula saws	L-shaped awls, Ritual objects, Horn sickle	None	Ornament ?	Bone Hoop	None	Awls, ornaments, flaking tools	None	Awls, beads, tubes	Awls, bead	Awls, beads	Awls, needles, flaking tools, beads, pendants	Antler flesher, fish gorges, projectile point, harpoon prong?	None	None
Features	Hearths	None	Burials, cairns, Postholes	Hearths	Pithouses, hearths	Caches	None	None	None	None	Infant Burial	Burials, postholes	Rock concentrations Artifact concentrations	None	None	Hearths	Burials	Dog & human burials, "kitchens"	None	None
Perishables	None	None	None	None	Basketry, cordage, Feathers, Corncobs, Sandals	Basketry, coiled trays, wooden bowls, pinenut beads, feather bundles	Basketry, textiles, etc.	None	Basketry, cordage, matting, leather, wooden projectile point?	Basketry, cordage, matting, feather bundle skins, firedrill, knife handle, bow section,	Basketry, cordage	Textiles	None	Basketry, cordage, skins & hides, wooden pegs, pins, arrows	None	Matting	None	None	Basketry, sandels, dart foreshaft, fire-drill foreshaft	Fire-drill foreshaft, wooden needle? Atlatl foreshaft?
Miscellaneous					Griddlestone, grass & slab-lined cists, figurine		Baked clay objects			Clay Lumps		Clay figurines, baked clay objects		Clay objects		Clay lumps			Paint handstone Milling stone with red pigment	

CONCLUSIONS

With an arid desert climate similar to that of the area today, the fresh water springs and sheltering dunes at Cl-243 provided a natural camping ground. Situated as it is between the Sheep Range and the Spring Mountains, where game and food plants are to be found, this site would have made a favorable resting place for people journeying between the ranges in quest of game, pinyon nuts, other foods, and trading parties going back and forth between the Colorado River and California.

Seed grasses and other edible plants in the dunes area would have provided a source of vegetal food. Game animals, taking advantage of the natural resources, i.e., fresh water and grasses for fodder, would have provided fresh meat, skins and bone for tools.

Around the seven existing springs lying approximately one mile east of the dunes site are milling stone fragments, small chipping waste and pottery sherds in abundance, although relatively few core tools were noted. One quarter mile west of the present springs, where the sand dunes begin, pottery sherds were not in evidence. This suggests the possibility of a time lapse between the extinction of the springs located in the dunes and the birth of the present springs. The greater evidence of core tools within the dunes site increases this probability.

The charcoal samples collected from the hearths, both on the surface and to a depth of 102 inches, yielded seven radiocarbon dates which range from 5200 ± 100 to 4030 ± 100 B.P., spanning 1,370 years, and representing a long, but apparently discontinuous period of human occupation. The constant shifting of the sand over the site would account for the varying depths of the hearths.

The artifacts of the site are characterized by crude, percussion-flaked core tools, seed-grinding implements and chipped stone scraping and cutting tools, products of a gathering-hunting economy. The core tools and cutting and scraping tools were probably used in the killing and butchering of animals, for the scraping and curing of hides, for crushing the bones of smaller animals to make them edible, and for splitting larger bones to remove the marrow. They might also have been employed in the manufacture of shafts for projectiles or spears and perhaps for the shredding and cutting of edible plants and roots.

The almost complete lack of faunal remains again suggests temporary occupation by small groups of people, who made use of the major parts of any animals they killed. Leaching of the soil and predatory animals and birds must also be considered. Another factor is that the faunal remains were probably used as a fuel for fires in an area where there was little wood.

The quantity of chipping refuse but the conspicuous lack of projectile points might be explained by the possibility that these tools were lost after being used, or that they were broken or discarded at other locations. A more probable explanation is that the Corn Creek Field Station lies close to the highway; there are many dirt roads criss-crossing the entire area, making the locale accessible to all. From the few collections viewed by the authors and the information obtained from local residents, it was learned that artifacts have been collected from the Corn Creek area since the 1920's and perhaps even earlier.

We may conclude that on the basis of the radiocarbon dates, the artifact inventory, and comparisons with other contemporary sites that the Corn Creek Dunes Site represents an eastward extension of the southern California Pinto Culture into the southern Nevada Cultural sequence: in order of time from the earliest this sequence is Tule Springs, Gypsum Cave, Pinto, Basketmaker II and III, Pueblo I, II, III, Southern Paiute, and the Historic Period.

The shifting sand dunes undoubtedly still cover many sites which are yet to be revealed. A reconnaissance of the surrounding mountains has revealed many caves and shelters showing occupational culture debris; they are far enough away from the roads to have remained as they were left by their aboriginal inhabitants. Future surveys could reveal many more of these sites, thereby recovering the information necessary to gain a more thorough understanding of the prehistory of the area. This data would also serve to assist in forming temporal and spatial relationships with other sites in and near southern Nevada and adjacent areas.

APPENDIX A

THE CORN CREEK AREA SURVEY

Introduction

Additional data about the prehistory of the Corn Creek area was gathered as a result of field work carried out at the Corn Creek Field Station, designated Cl-242. An area of approximately one square half mile, encompassing the Field Station, was found to contain an abundance of cultural material. A surface survey was conducted to locate the areas of heaviest artifact concentration and to investigate areas farther away from the Field Station.

The authors wish to thank Dr. Charles G. Hansen, Wildlife Management Biologist at the Corn Creek Field Station, for his cooperation during this survey and for accompanying the authors to sites he had previously noted. We also wish to thank three members of the Tule Springs Project who assisted with this survey: Christopher Dove, Mark Levine and Jean Stearns.

During the course of the survey, diagnostic pottery sherds and projectile points were collected and recorded. Three sites, temporarily designated Cl-242A, Cl-242B, and Cl-242C, located approximately one-half mile apart, warranted further investigation.

The dune area within one quarter of a mile of the Corn Creek Dunes Site (Cl-243), designated Area E, was also investigated, as was an isolated surface site, the Corn Creek Railroad Site.

Cl-242A

About fifteen mortars were located in a caliche cap within the northwest corner of the mountain sheep pen at the Corn Creek Field Station. Chipping waste and pottery sherds were scattered about the area. Three mortar depressions were measured in a mass of caliche that had been moved outside of the pen during construction work.

Mortar 1	depth 1.8 cm.	dia. 17.8 cm.
Mortar 2	depth 26.6 cm. (worn through)	dia. 20.4 cm.
Mortar 3	depth 35.5 cm.	dia. 21.5 cm.

Cl-242B

Cl-242B was located in the southwest corner of the Corn Creek Field Station. The site lies in a dune field and is about 150 feet in diameter. The surface was densely covered with chipping waste and pottery sherds. Intrusive limestone rocks, some of them burned, and flecks of charcoal were also apparent.

A five foot square pit was excavated in the area of the heaviest concentration of artifacts. The pit was located 364', 350° magnetic north of Nevada Power electric pole number 4047. Excavation was carried out in six inch levels and the soil was screened through one-quarter inch mesh. All material was bagged and labeled by pit and level at the site (Tables 1, 2, 3).

Atriplex sp. and *Guiteriezia* sp. were growing on the site; their roots extended through all the levels excavated. Flecks of charcoal and limestone rocks were also present in all levels.

The matrix from surface to 12 inches was light tan, fine quartz blow-sand. From 12 to 24 inches the matrix was weakly compacted brown silty sand. Caliche base was reached at 24 inches.

Cl-242C

Cl-242C is situated at the southeast corner of the Corn Creek Field Station, 100 feet south of the stable, within the corral. The site measures approximately 100 feet in diameter.

Whole and fragmentary projectile points and a sample of pottery sherds were collected and recorded from the site. Milling stone and mortar fragments, hand stone fragments and a few hammerstones and cores were also noted within the heavy concentration of stone refuse. Charcoal was in evidence over the whole site.

A five by five foot pit, designated Pit 2, was laid out at the center of the site in order to determine the depth of the site. Datum was established at the northwest corner of Pit 2, and was 421' 65° magnetic north of Nevada Power pole number 20944. Excavation was carried out by six inch levels to a depth of 22 inches where a solid, sterile bed of limestone gravels and cobbles was encountered. All soil was screened through one-quarter inch mesh and all material bagged and labeled by pit and level (Tables 1, 2, 3).

The matrix was weakly compacted, light brown, fine quartz sand. Decayed roots, charcoal, and limestone pebbles, gravels and cobbles, some fire-fractured, were found throughout. A yellow ash lens, one and a half inches thick, was encountered at six inches.

The Corn Creek Railroad Site

A lithic surface site was located approximately one mile east of the Corn Creek Railroad Station and about 100 yards south of the dismantled railroad bed. The site, two miles southwest of the Corn Creek Field Station, covers an area of about 200 feet, and is surrounded by hillocks that are just north of the Las Vegas Wash. Chipping refuse, chipped stone artifacts, and fire-fractured rocks were found on the surface of this site (Tables 1, 2).

Area E

Area E is located in the dune field area adjacent to the Corn Creek Dunes Site (Cl-243). The investigators found milling stone fragments and core tools in blowouts or in low depressions between sand dunes. Four chipping stations, consisting of small concentrated areas of chert and limestone chipping waste, were noted. Also found were three whole and six fragmentary projectile points, and one blade fragment.

DESCRIPTION OF PROJECTILE POINT TYPES FOR TABLES 1 AND 2 OF APPENDIX A

Type 1. Pinto-Type. Broad leaf, weak side notches, concave base, percussion flaked (Pl. 13, a, b, c).

Type 2. Triangular, side notched, convex base, percussion flaked, lenticular in cross-section (Pl. 13, d).

Type 3. Triangular, side notched, concave base, percussion flaked, lenticular in cross-section (Pl. 13, e).

Type 4. Triangular, concave base, controlled percussion, lenticular in cross-section (Pl. 13, f).

Type 5. Broad leaf, pointed base, pressure retouch (Pl. 13, g).

Type 6. Narrow leaf, straight base, controlled percussion, lenticular in cross-section (Pl. 13, h).

Type 7. Triangular, corner notched, convex base, percussion flaked (Pl. 13, i, j, k).

Type 8. Triangular, side notched, concave base, pressure retouch (Pl. 13, l).

Type 9. Broad, convex base of large leaf-shaped point, percussion flaked, probably related to Type 5.

Fragmentary Serrated. Tip fragments of serrated points, broad, slightly convex, serrated sides, percussion flaked, lenticular in cross-section (Pl. 13, m, n).

APPENDIX A TABLE 1 Measurements and Weight of Cultural Material

Cultural Material	Total No. Specimens	Maximum (cm) lg.	Maximum (cm) wd.	Maximum (cm) th.	Minimum (cm) lg.	Minimum (cm) wd.	Minimum (cm) th.	Weight of whole Projectile points (grams)
Projectile Points								
Type 1	3	2.9	2.1	0.8	2.6	2.0	0.5	5.0, 4.1, 2.4
Type 2	1	4.7	2.0	0.8				7.0
Type 3	1	3.7	1.8	0.5				3.5
Type 4 (Tip missing)	1	4.2	2.4	0.5				7.6 (estimated)
Type 5	1	5.2	2.0	0.6				6.5
Type 6	1	3.4	1.1	0.5				2.4
Type 7	3	3.0	1.4	0.3	1.5	1.2	0.2	1.3
Type 8	1	2.6	1.0	0.2				0.8
Type 9 (Fragments)	2	3.7	2.2	0.4	2.2	1.4	0.4	
Unidentified Fragments								
Tips	4	3.0	1.6	0.4	1.5	1.3	0.3	
Medial	3	2.3	1.8	0.3	2.1	1.1	0.3	
Serrated	2	3.0	2.3	0.5	2.9	1.6	0.4	
Blade Fragments								
Bases	2	5.3	4.1	0.9	3.6	3.3	0.8	
Medial	1	3.4	2.5	0.6				
Knives	2	4.9	2.8	0.6	2.5	2.1	0.3	
Side Scraper	1	3.5	1.7	0.8				
Tool Reject	1	3.1	3.0	1.1				
Tool Fragment	3	2.5	1.5	0.6	1.5	0.9	0.3	
Chipping waste	Present: chert, limestone, quartzite, obsidian							
Ground stone								
Milling stone	1	22.6	10.8	5.1				
Hand stone	1	7.6	6.9	3.9				
Caliche Bedrock Mortars	ca. 15							
Unmodified Bone Fragments	16							
Pottery (See Table 3)								

APPENDIX A - TABLE 2 - DISTRIBUTION OF CULTURAL MATERIAL

Cultural Material	Cl-242A	Cl-242B	Cl-242C	Corn Creek Railroad Site	Area E
Projectile Points					
Type 1	--------------------	--------------------	--------------------	(3) 1 obsidian, 1 basalt, 1 quartzite *	--------------------
Type 2	--------------------	--------------------	--------------------	(1) chert	--------------------
Type 3	--------------------	--------------------	--------------------	(1) chert	--------------------
Type 4	--------------------	--------------------	--------------------	--------------------	(1) chert
Type 5	--------------------	--------------------	--------------------	--------------------	(1) chert
Type 6	--------------------	--------------------	--------------------	--------------------	(1) chert
Type 7	--------------------	(2) chert - 0-6" & 18-24"	(1) chert	--------------------	(3) chert
Type 8	--------------------	--------------------	--------------------	--------------------	(1) chert
Type 9	--------------------	(1) chert: 6-12"	(1) chert	--------------------	--------------------
Unidentified Fragments					
Tips	--------------------	--------------------	(3) 1 obsidian, 2 chert	--------------------	(1) chert
Medial	--------------------	--------------------	(3) chert	--------------------	--------------------
Serrated	--------------------	--------------------	--------------------	(1) quartzite	(1) chert
Blade Fragments					
Bases	--------------------	--------------------	--------------------	(1) chert	(1) chert
Medial	--------------------	(1) chert	--------------------	--------------------	--------------------
Knives	--------------------	(2) chert: 0-6" & 12-18"	--------------------	--------------------	--------------------
Side Scraper	--------------------	--------------------	(1) chert: 0-6"	--------------------	--------------------
Tool Reject	--------------------	(1) chert: 18-24"	--------------------	--------------------	--------------------
Tool Fragment	--------------------	1 obsidian: 0-6", 1 chert: 6-12" 1 chert 18-24"	--------------------	--------------------	--------------------
Chipping Waste	Present in Quantity	710 flakes: 0-6" 55 flakes: 6-12" 15 flakes: 12-18" 30 flakes: 18-24"	75 flakes: 0-6" 34 flakes: 6-12" 38 flakes: 12-18" 64 flakes: 18-22"	Present in Quantity	Present in Quantity
Core Tools	Present (rare)	Present (rare)	Present (rare)	Present (rare)	Present
Ground Stone					
Milling Stones	(1) sandstone, whole spec. Present (fragments)	Present (fragments)	Present (fragments)	Present (fragments)	Present (fragments)
Hand Stone	Present (fragments)	Present (fragments)	(1) quartzite: 6-12"	--------------------	--------------------
Caliche Bedrock Mortars	ca. 15	--------------------	--------------------	--------------------	--------------------
Unmodified Fragmentary Bone	--------------------	(7): 0-6"; (3): 6-12"	(5): 0-6"; (1): 6-12"	--------------------	--------------------
Pottery	Present in Quantity	6-12" - 3 Washington corrugated 12-18" - 9 Washington corrugated 18-24" - 3 Washington corrugated	6-12" -1 S.Paiute Brown ware 1 lino gray 12-18" 2 Boulder Gray 2 S. Paiute brown ware	--------------------	--------------------

* Unless otherwise indicated, material is surficial.

Pottery

All pottery types found at Cl-242 were identified by Dr. Richard Shutler, Jr. and have been described by him and others in the literature (Shutler 1961; Shutler and Shutler 1962).

Random samples were collected from Cl-242A, Cl-242B and Cl-242C. One intrusive fragment of Shinarump Brown was found at the Corn Creek Railroad Site; no pottery was observed in Area E. The fifteen types collected are isolated by site in Table 3.

The pottery types present indicate a time span of occupation in the area from Basketmaker III to historic times with the Southern Paiute Brown Ware sherds.

APPENDIX A TABLE 3 POTTERY

Pottery Type	Cl-242A	Cl-242B	Cl-242C
Aquarius Brown	0	x	x
Boulder Gray	0	x	x
Lino Gray	0	x	x
Medicine Black-on-Red	x	x	x
Moapa Gray	0	x	x
North Creek Black-on-Gray	0	x	x
North Creek Corrugated	0	x	x
North Creek Gray	0	x	x
Pyramid Gray	x	x	x
Shinarump Brown	0	x	x
Southern Paiute Brown Ware	x	x	x
St. George Black-on-Gray	0	x	x
Tusayan Black-on-Red	0	x	x
Washington Corrugated	0	x	x
Washington Gray	0	x	x

x = present
0 = absent

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EXPLANATION OF PLATES

Plate 1. Cl-243; the Corn Creek Dunes Site. *a*, view of site looking southwest to Srping Mountains; *b*, Fire Hearth 1 on surface; *c*, Strata Trench looking north to Sheep Range; *d*, hearth in Strata Trench. V. Haynes collecting charcoal sample.

Plate 2. Small chipped stone tools. *a*, projectile point; *b*-*f*, projectile point fragments; *g*, projectile point reject; *h*-*k*, blade fragments.

Plate 3. Small chipped stone tools. *a*-*c*, pointed scrapers; *d*-*f*, side scrapers; *g*-*i*, convex scrapers; *j*, concave scraper; *k*-*l*, concavo-convex scrapers; *m*, multi-purpose scraping tool; *n*, scraper plane.

Plate 4. Core tools. *a*-*f*, hammerstones.

Plate 5. Core tools. *a*-*f*, bifaced choppers.

Plate 6. Core tools. *a*, massive, keeled scraper plane; *b*-*d*, scraper planes.

Plate 7. Core tools. *a*-*f*, scraper planes.

Plate 8. Cores. *a*-*c*, small cores; *d*-*f*, large cores.

Plate 9. Cobble flake tools. *a*, backed, bulbar flake knife; *b*-*d*, flake knives; *e*, convex scraper; *f*, end scraper; *g*-*h*, unmodified scrapers.

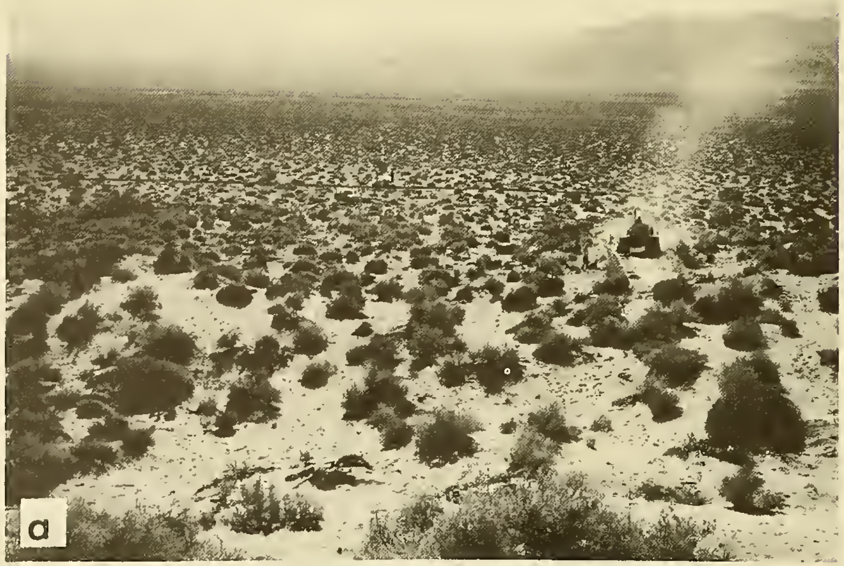
Plate 10. Ground and pecked stone. *a*-*b*, fragmentary slab milling stones.

Plate 11. Ground and pecked stone. *a*, basin milling stone.

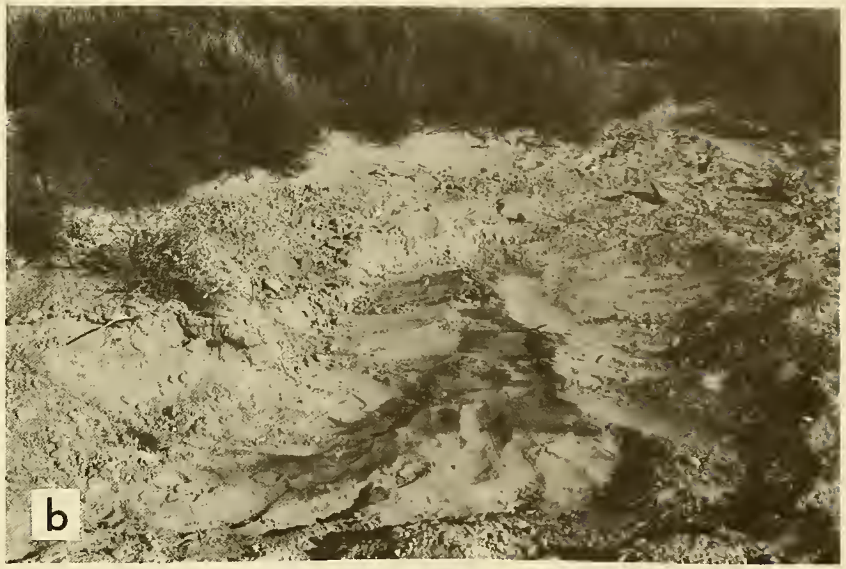
Plate 12. Ground and pecked stone. *a*-*c*, hand stone fragments; *d*-*e*, pestle fragments.

Plate 13. Corn Creek Area Survey projectile points. *a*-*c*, Type 1.; *d*, Type 2.; *e*, Type 3.; *f*, Type 4.; *g*, Type 5.; *h*, Type 6.; *i*-*k*, Type 7.; *l*, Type 8.; *m*-*n*, serrated tip fragments.

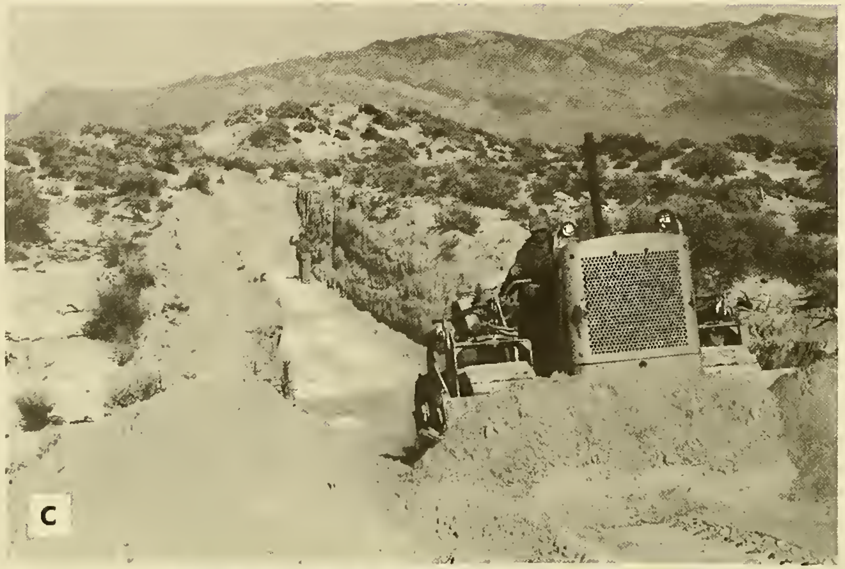
PLATE 1



a. View of site looking southwest to Spring Mountains.



b. Fire Hearth 1, on surface.



c. Strata trench, looking north to Sheep Range.

d. Hearth in Strata trench. V. Haynes collecting charcoal sample.

PLATE 2

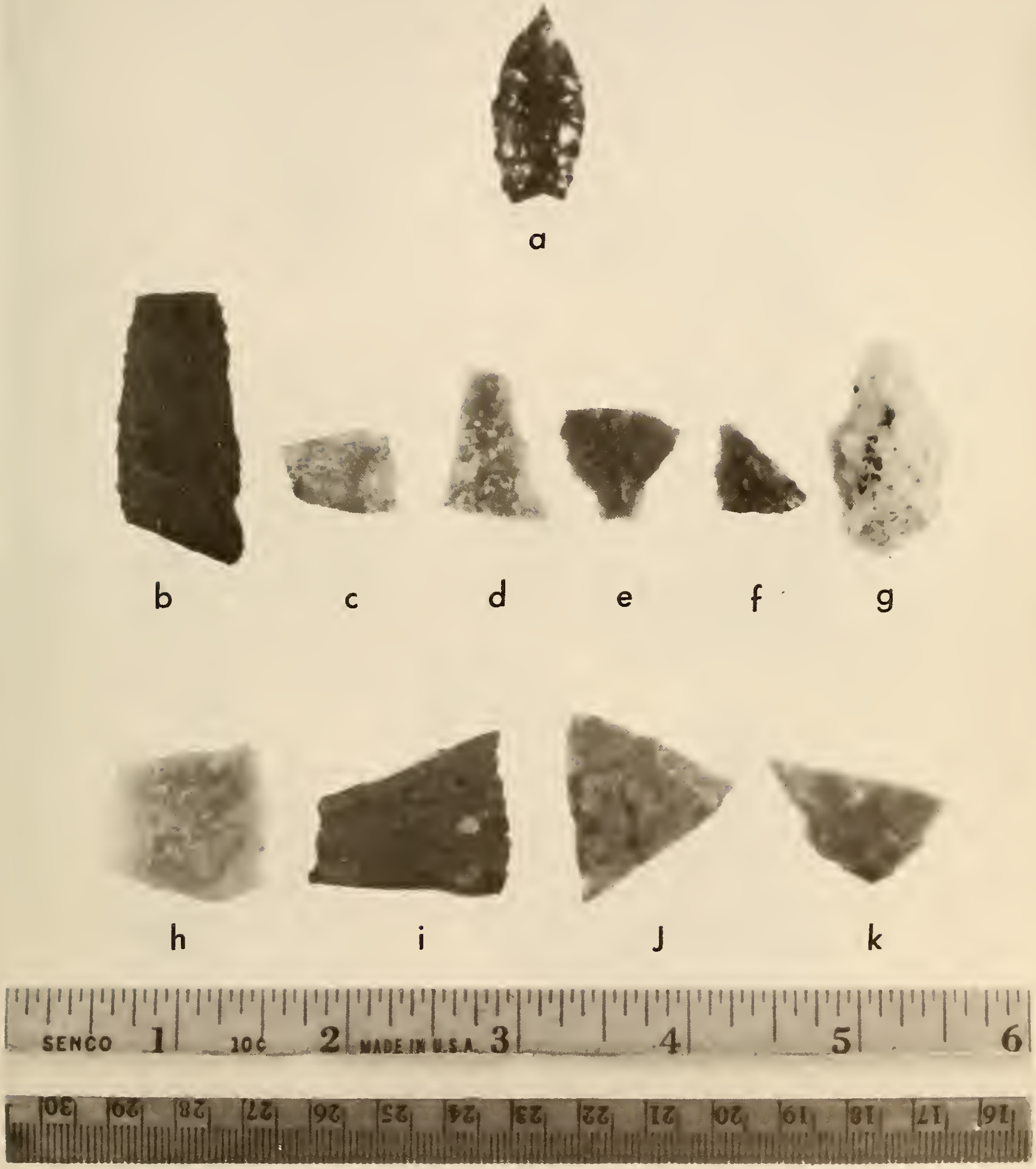

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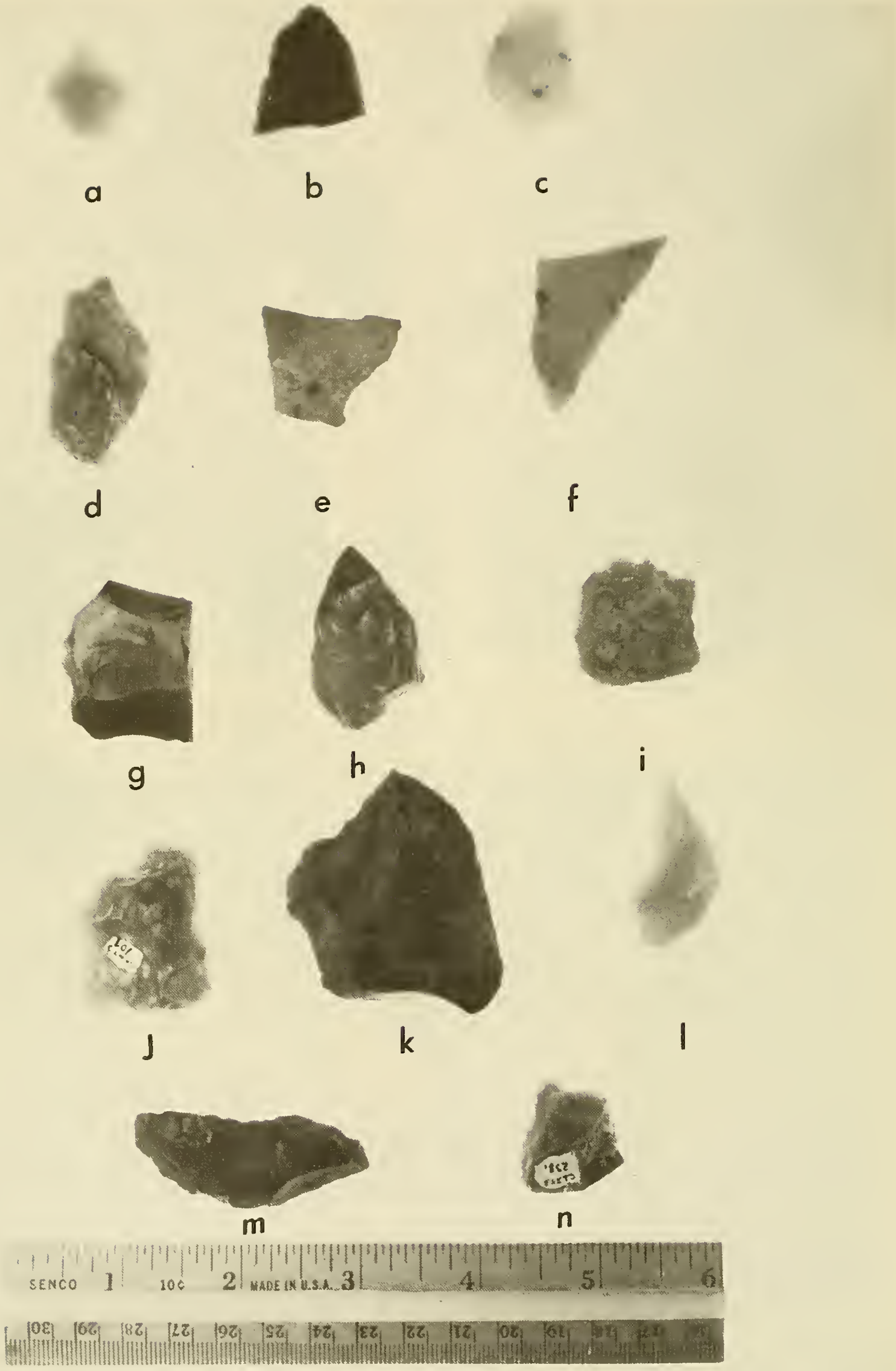
PLATE 3



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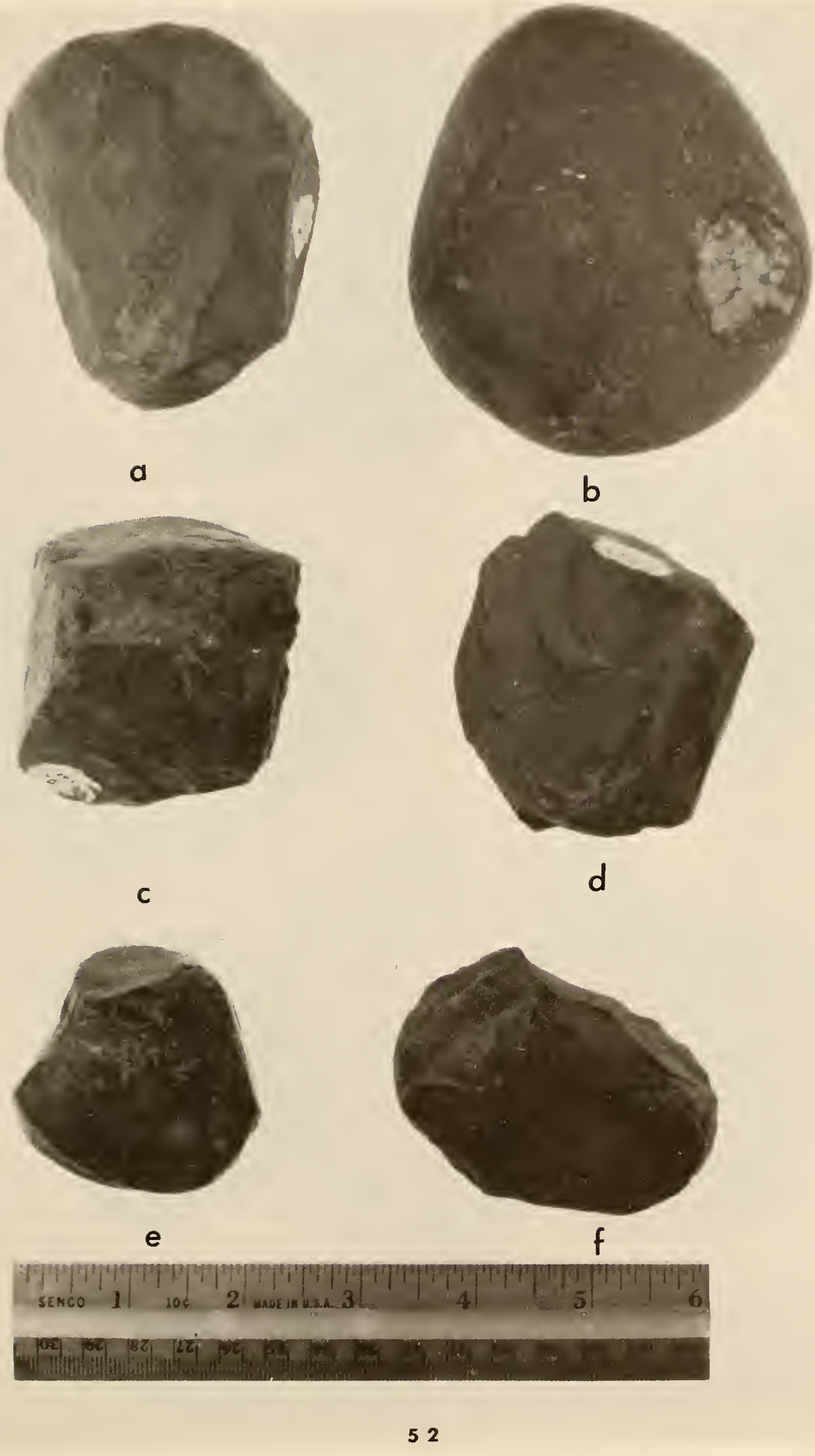

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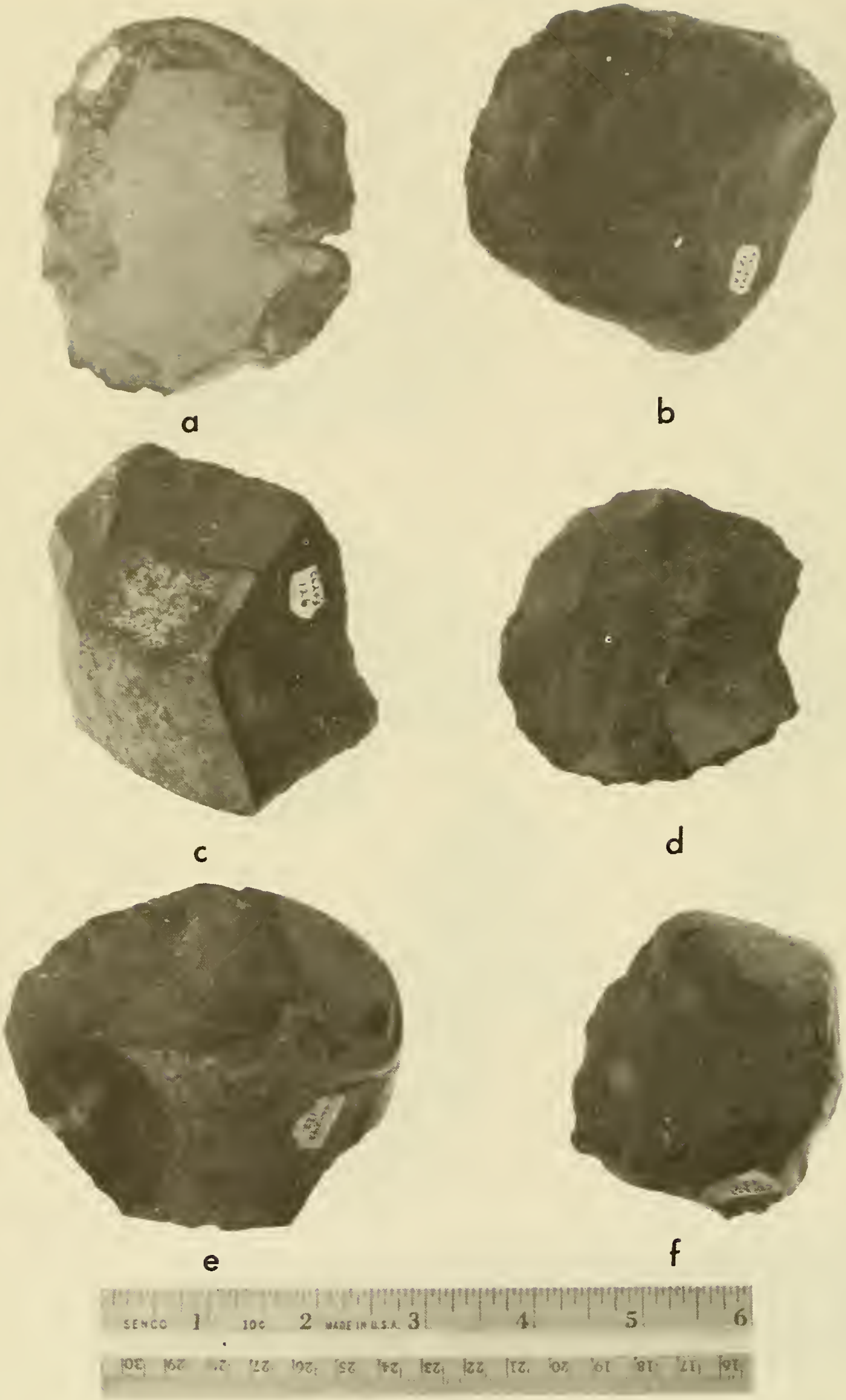

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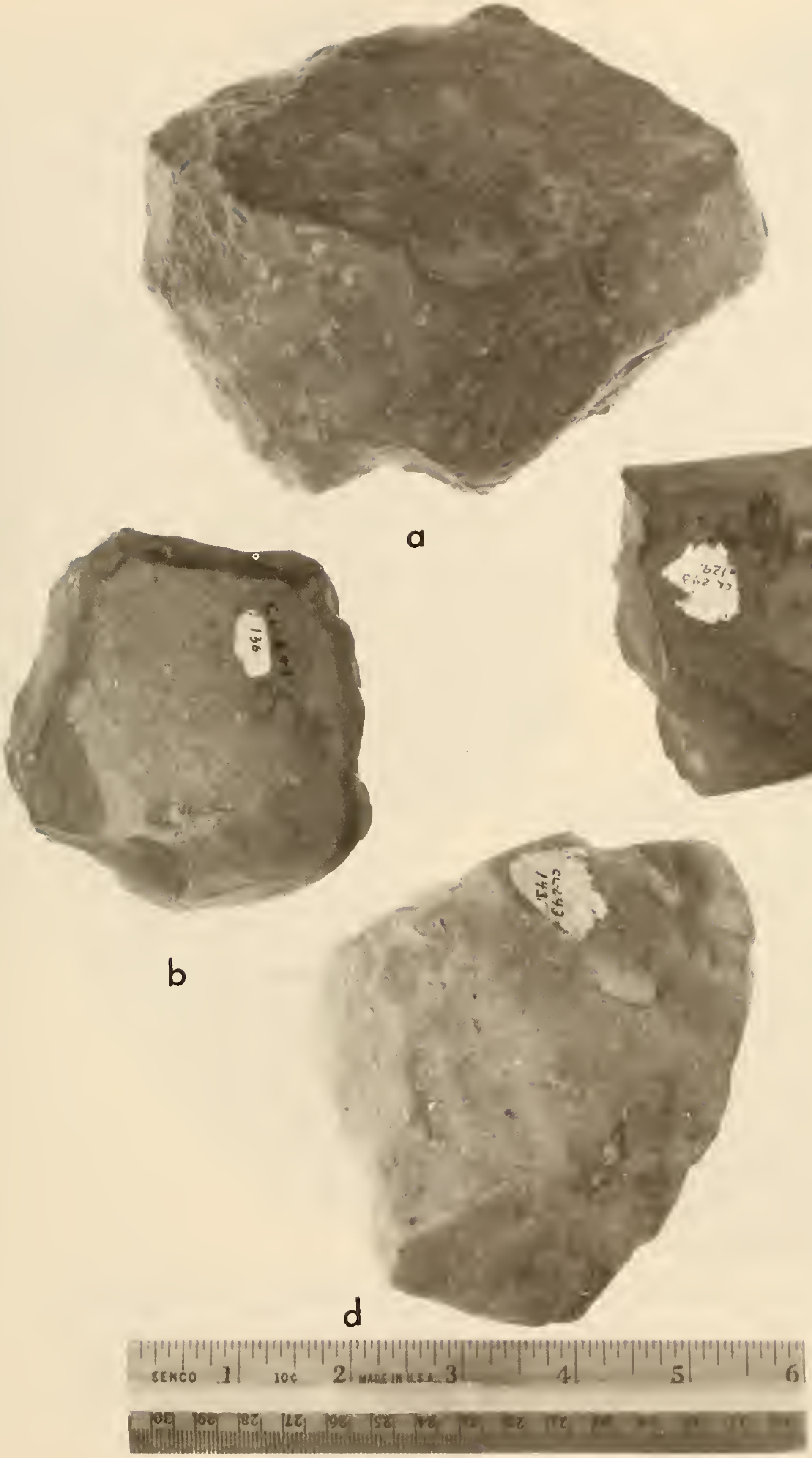

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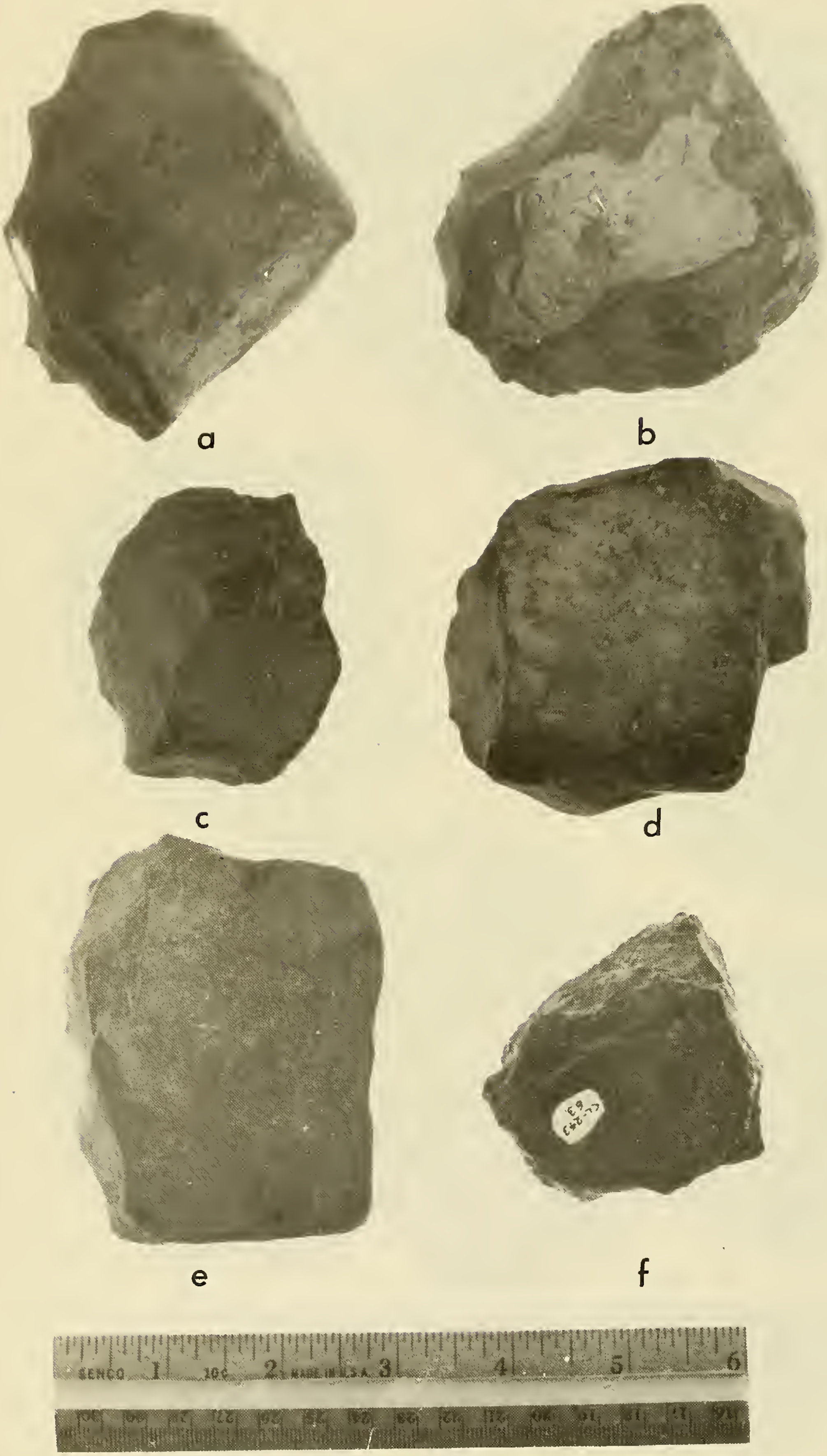

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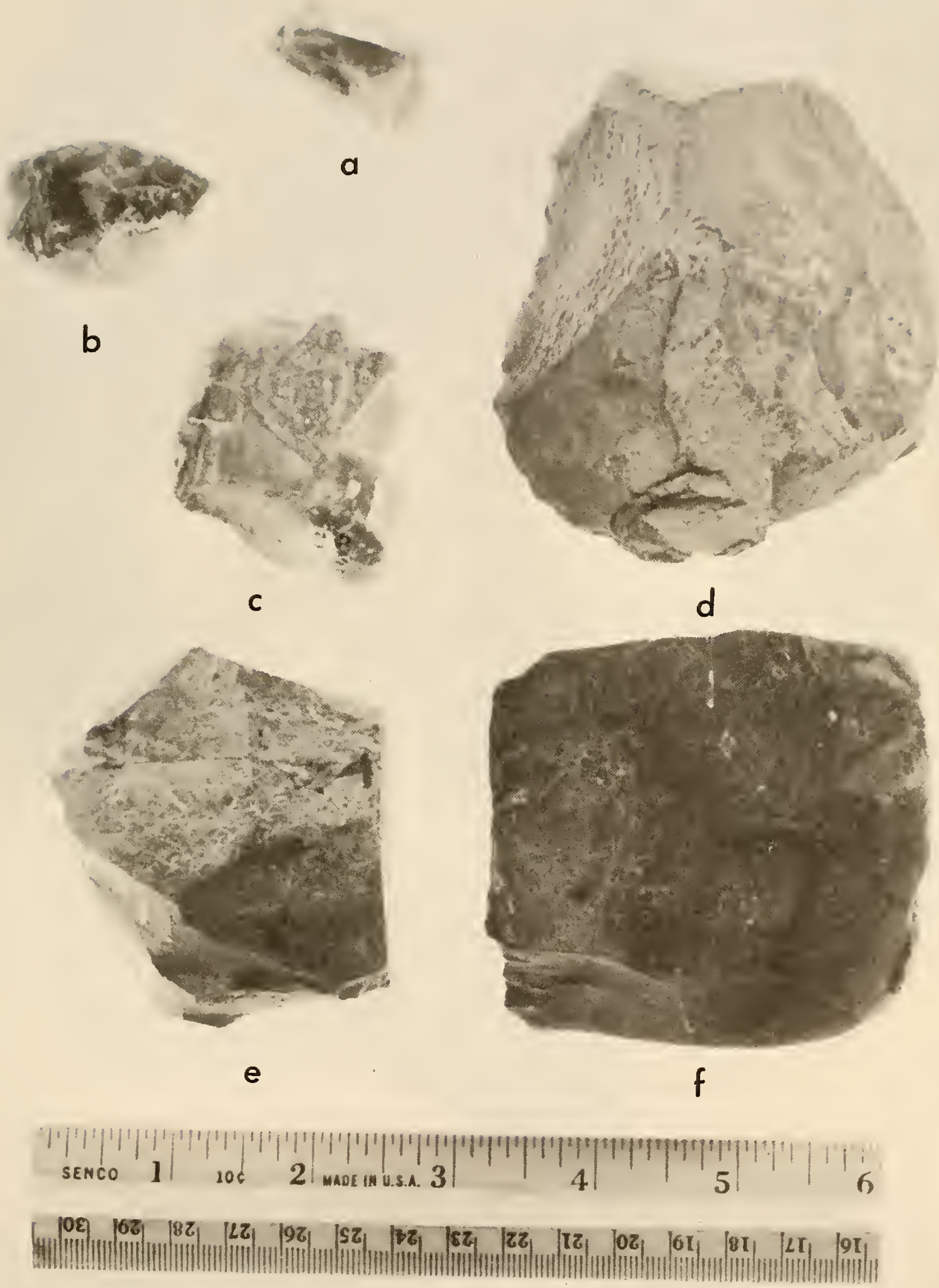
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PLATE 9

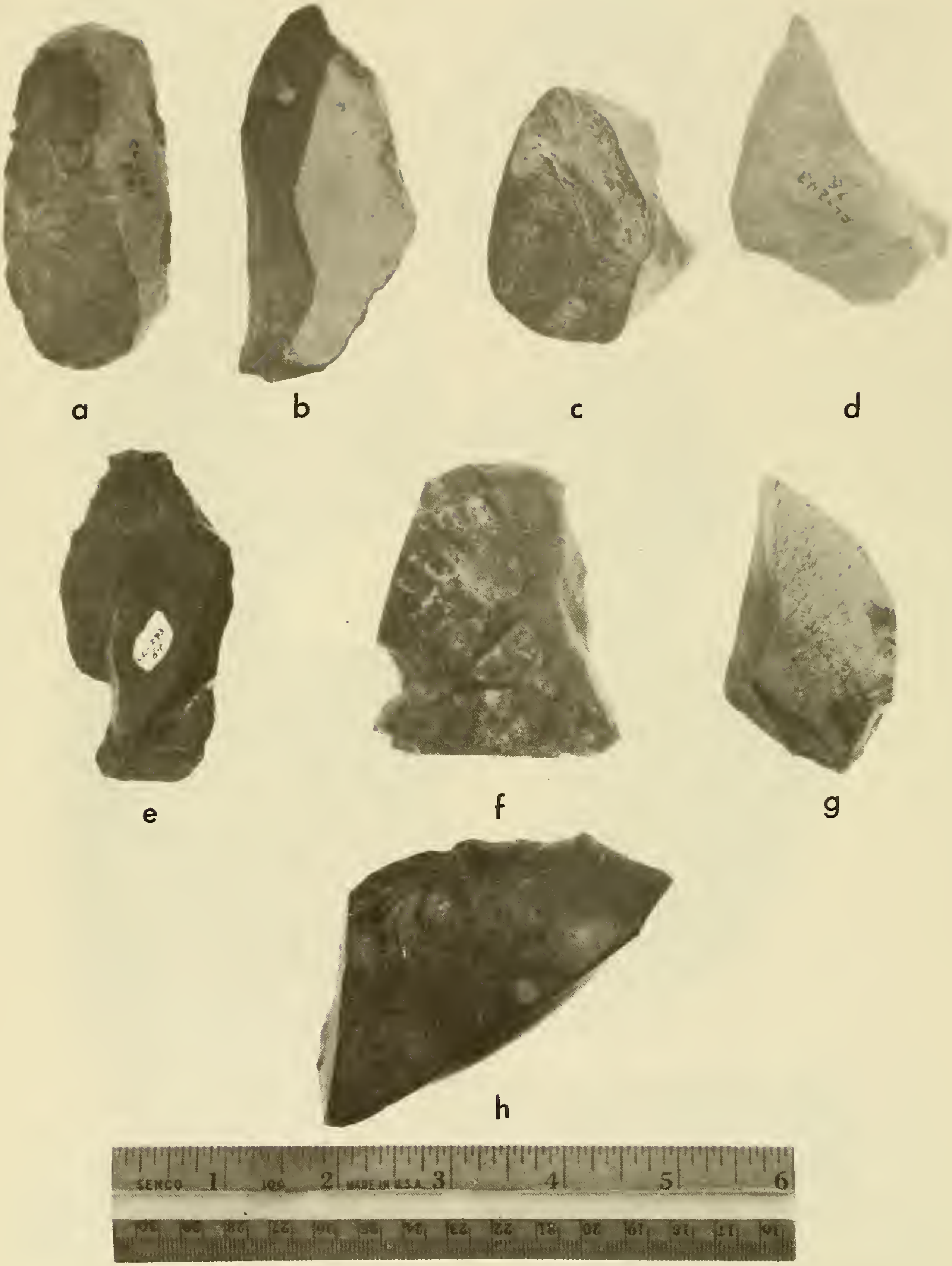
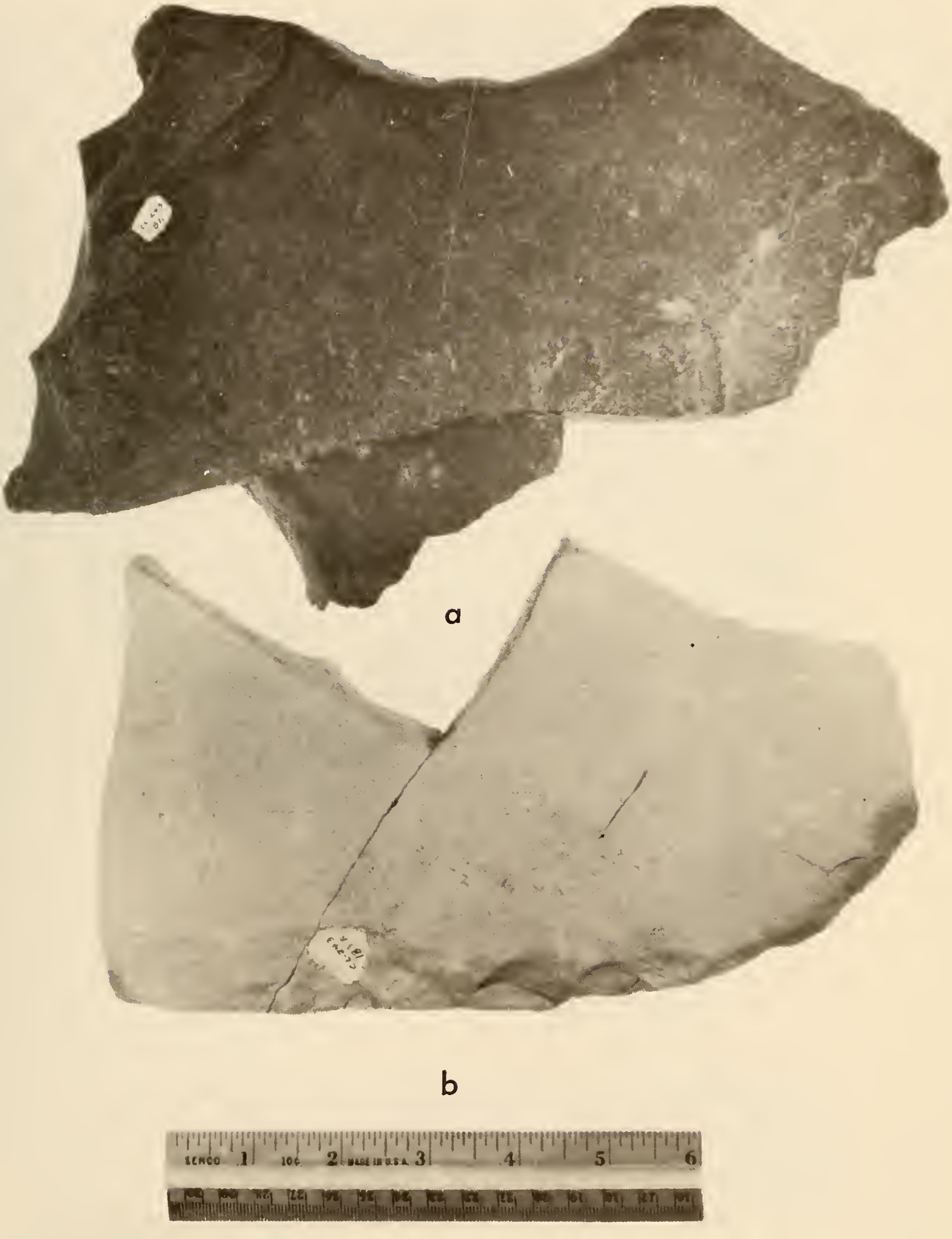


PLATE 10



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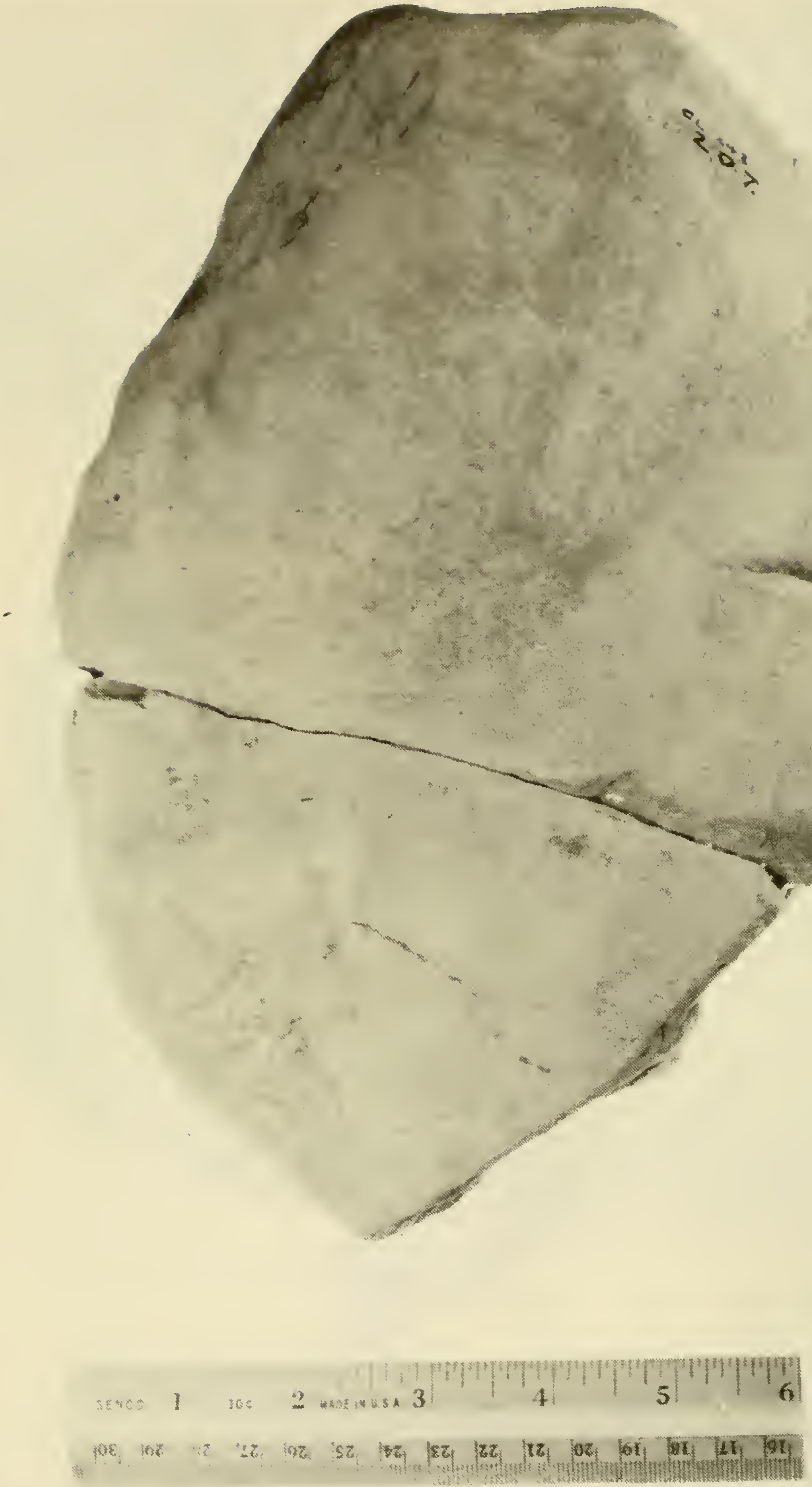

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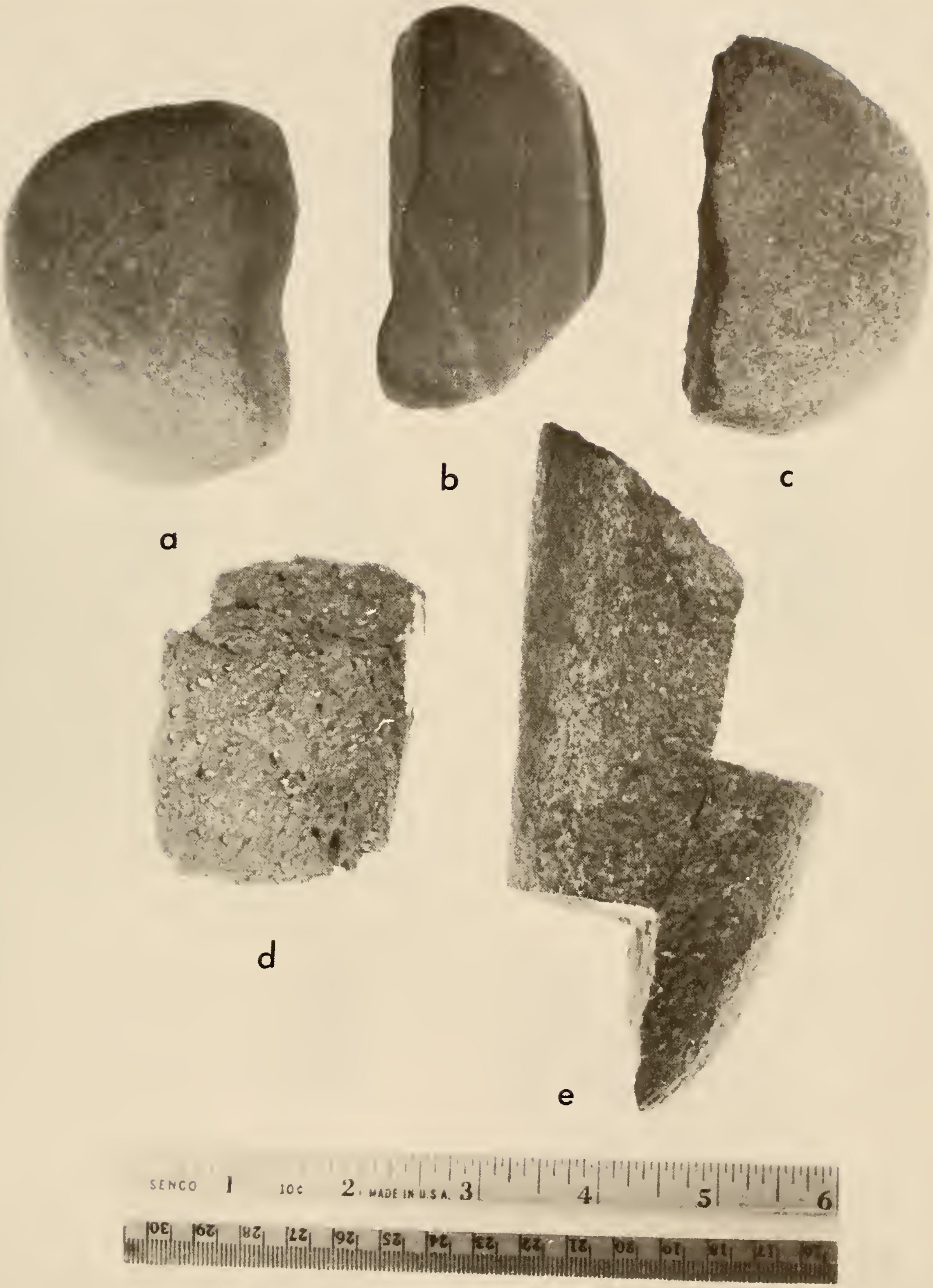

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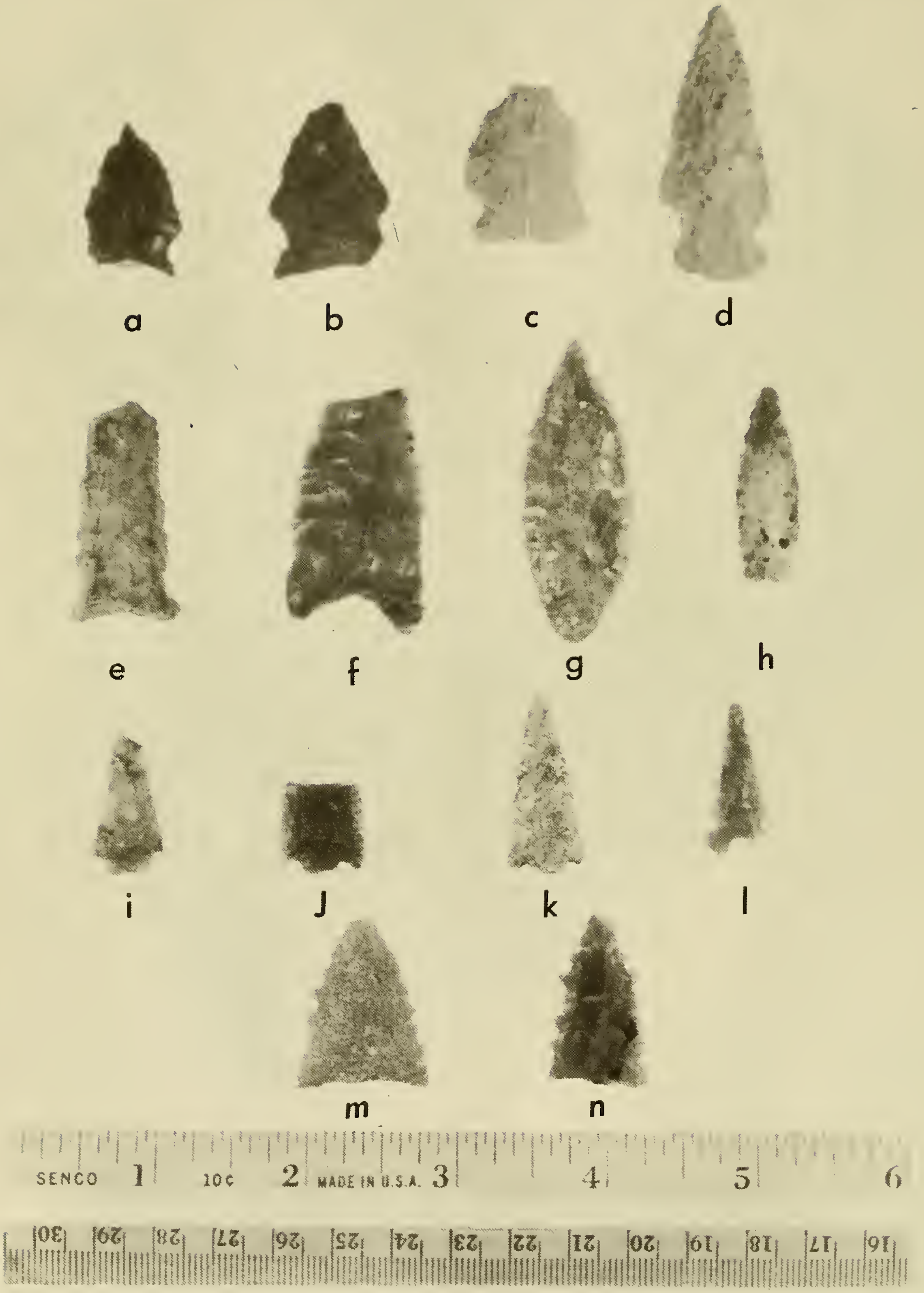
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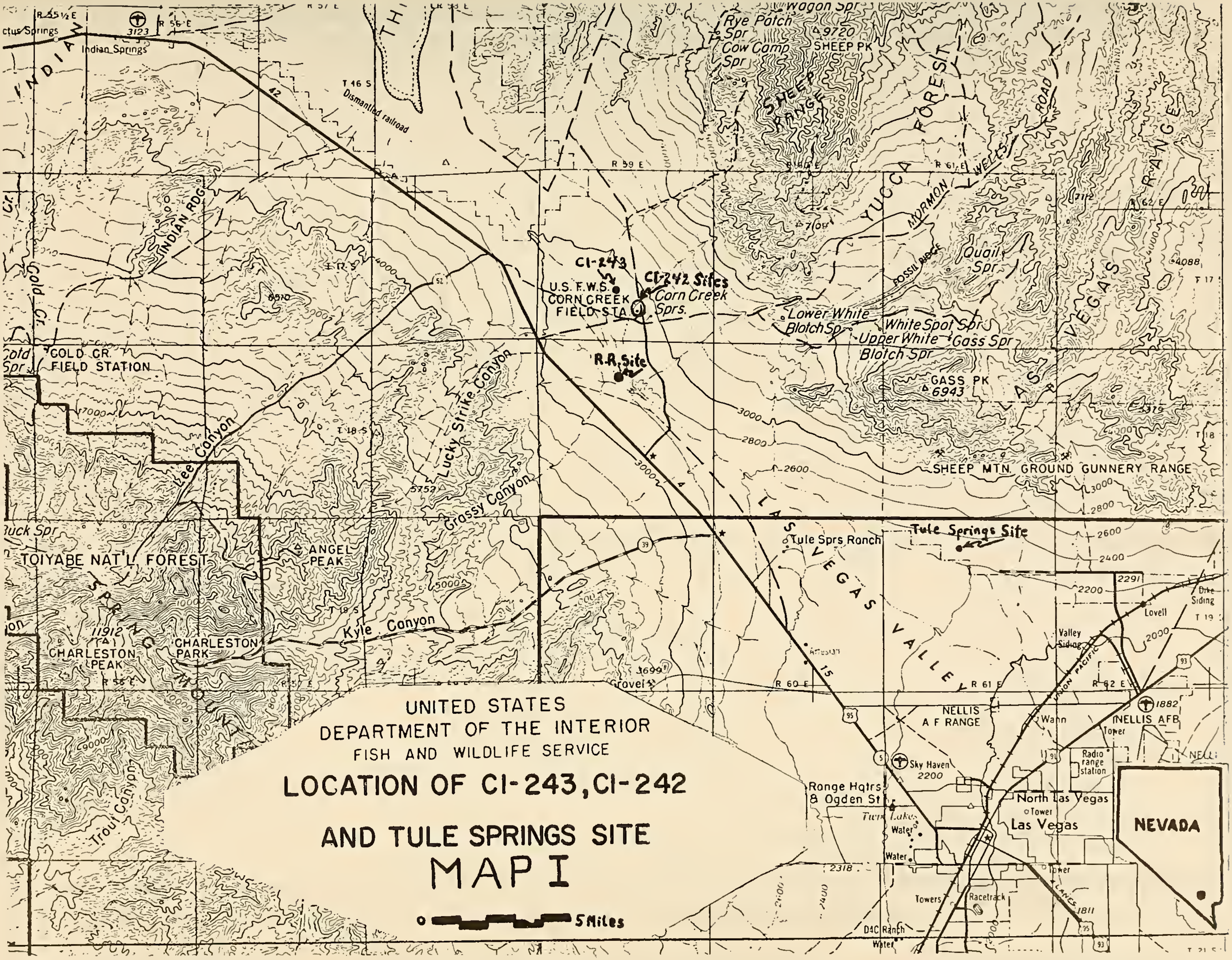

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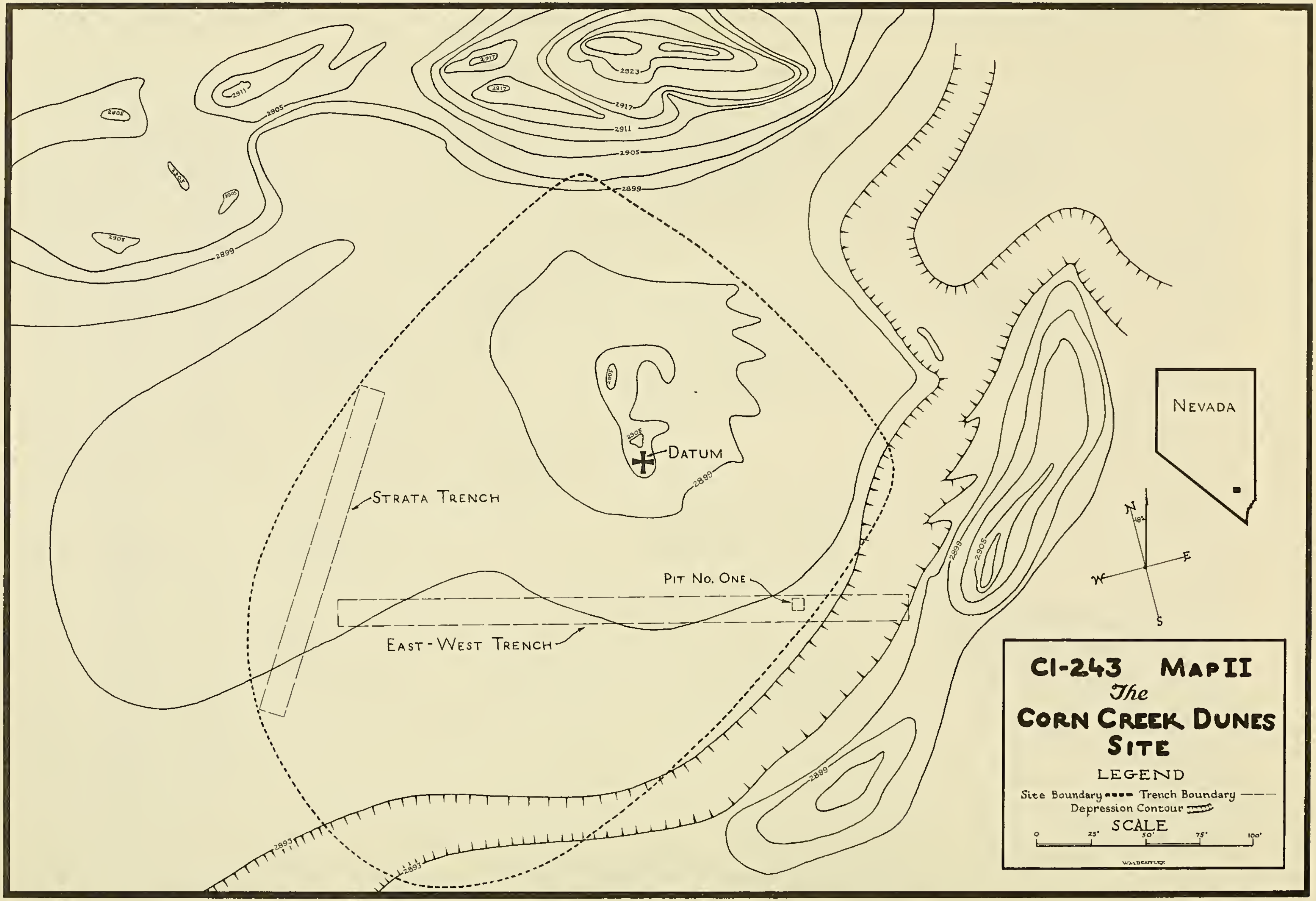
LOCATION OF CI-243, CI-242 AND TULE SPRINGS SITE

MAP I

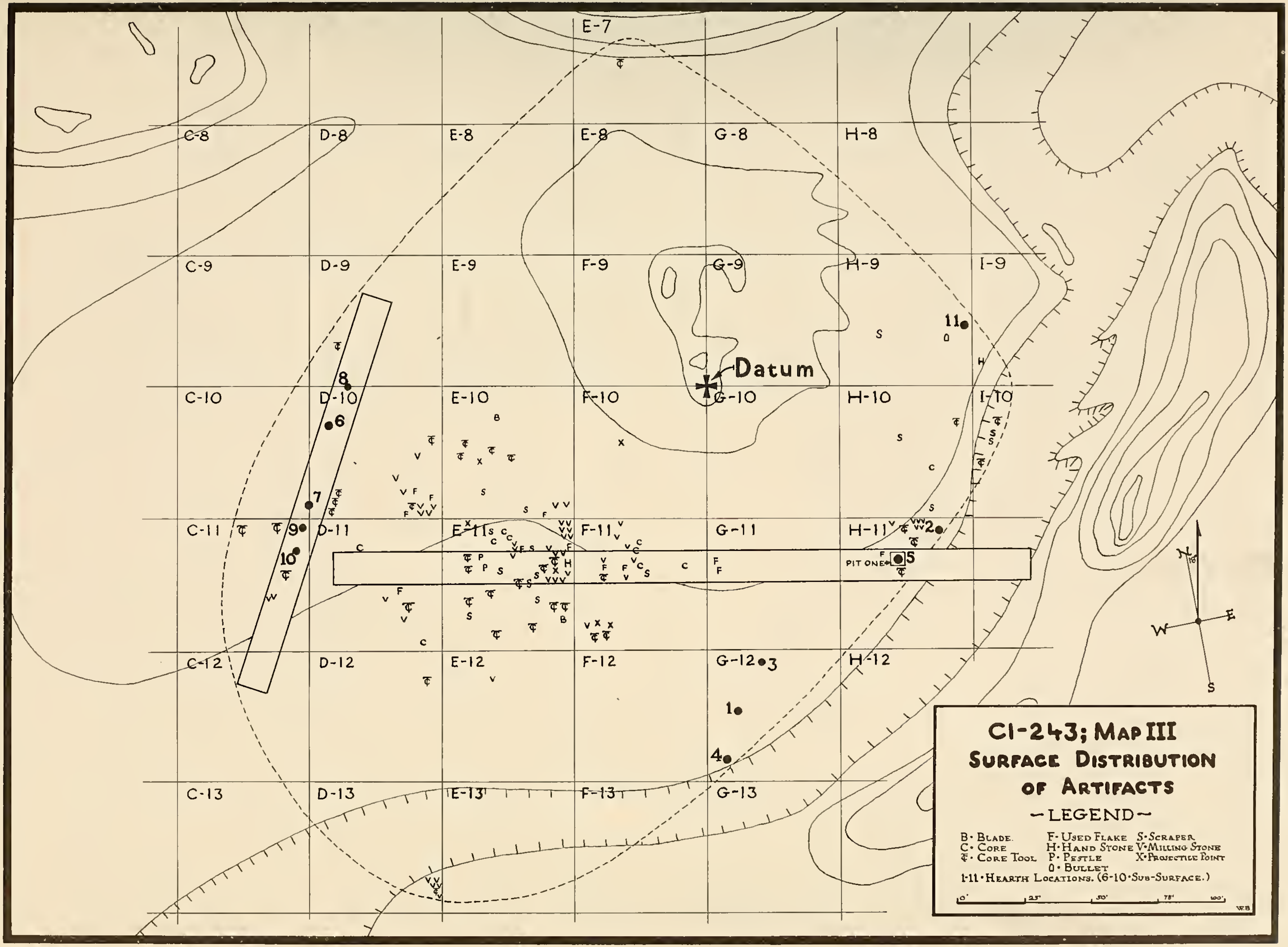
0 — 5 Miles



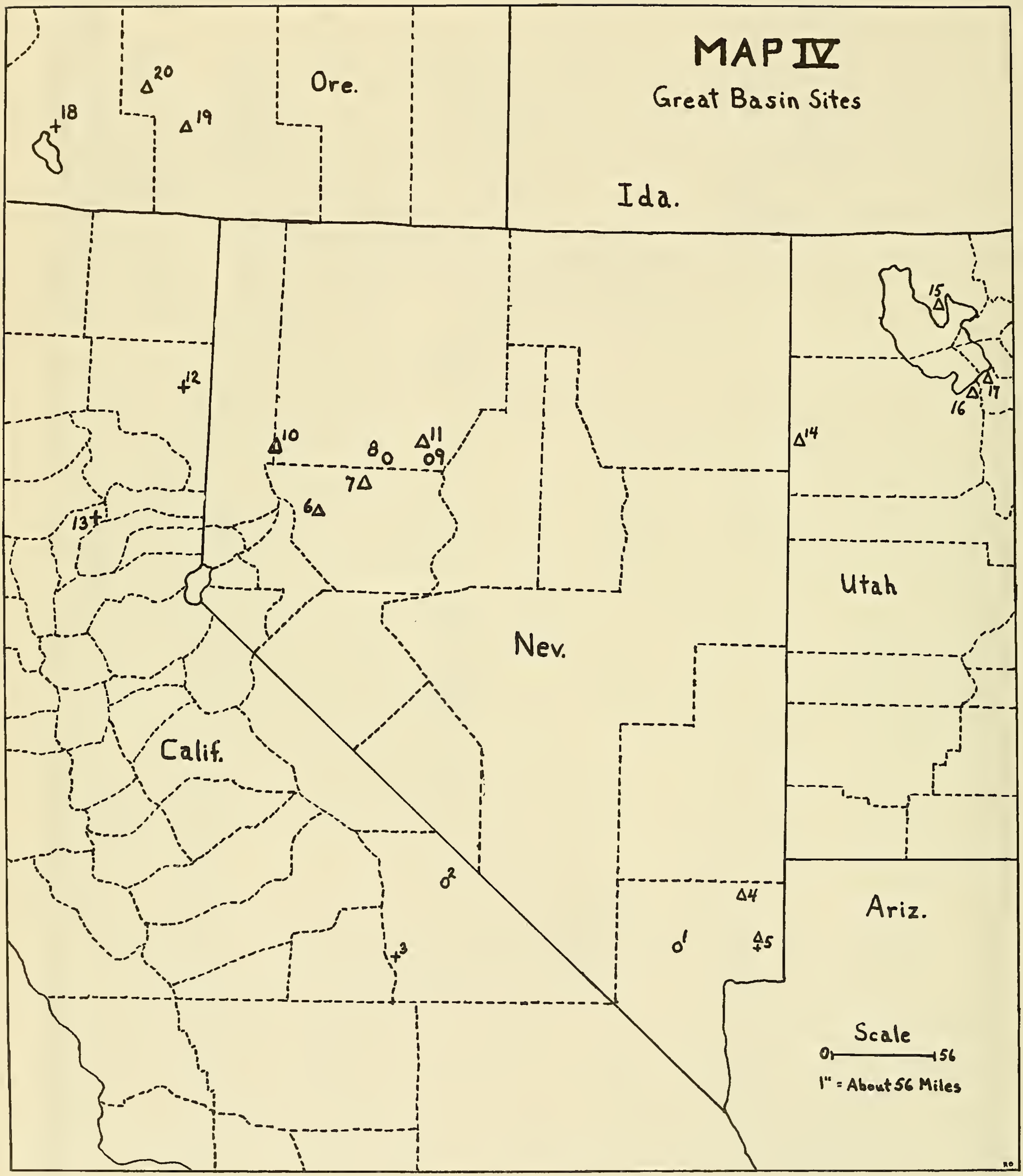
CI-243 MAP II

The

CORN CREEK DUNES SITE



CI-243; MAP III
SURFACE DISTRIBUTION
OF ARTIFACTS


MAP IV
Great Basin Sites
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Calif.
Utah
Ariz.
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15
16
17
18
19
20
Scale
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56
1" = About 56 Miles
RO

MAP IV

LEGEND

○ = Surface Site

+ = Open Site

△ = Cave or Rockshelter

1. Corn Creek Dunes Site
2. Death Valley (Mesquite Flat)
3. Little Lake (Stahl Site)
4. Stuart Rockshelter
5. Lost City
6. Humboldt Cave
7. Lovelock Cave
8. 26-Pe-5
9. 26-Pe-8
10. Winnemucca Lake Caves
11. Leonard Rockshelter
12. Karlo Site
13. Martis (Nev-15)
14. Danger Cave
15. Promontory Point Cave, No.2
16. Black Rock Cave, No.1
17. Deadman Cave
18. Klamath Lake (Kawumkan Springs Site)
19. Paisley Cave, No.1
20. Fort Rock Cave

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No. 3. Stuart Rockshelter: A Stratified Site in Southern Nevada. By Dick Shutler, Jr., Mary Elizabeth Shutler, and James S. Griffith (1960), 36 pp., 10 pls., 10 figs. (out of print).

No. 4. Honey Lake Paiute Ethnography. By Francis A. Riddell (1960), 87 pp., 5 pls., 2 maps. $1.50.

No. 5. Lost City, Pueblo Grande de Nevada. By Richard Shutler, Jr. (1961), 85 pp., 110 pls., 2 figs., 29 tables. $3.00.

No. 6. Washo Economy. By John Andrew Price (1962), 74 pp., 5 pls. $1.50.

No. 7. Archaeological Survey in Southern Nevada. By Richard Shutler, Jr., and Mary Elizabeth Shutler (1962), 38 pp., 35 pls., 2 maps. $1.50.

No. 8. Archaeological Survey in Southwestern Idaho and Northern Nevada. By Donald R. Tuohy (1962). 120 pp., 39 pls., 5 maps, 4 figs. $3.50.

No. 9. 1962 Great Basin Anthropological Conference Papers, Eleven Papers (1963), 112 pp., 4 pls. $1.50.

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